A social connectedness intervention as pathway to teacher resilience in primary schools in challenged spaces

by

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UNIVERSITY OF PRETORIA

Supervisor: Prof. Liesel Ebersöhn
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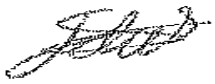
APRIL 2022

Declaration

I, Jessica Versfeld (student number 27322450), hereby declare that this thesis titled: *A social connectedness intervention as pathway to teacher resilience in primary schools in challenged spaces,* which I hereby submit for the degree Philosophiae Doctor in Educational Psychology at the University of Pretoria, is my own work and has not been previously submitted by me for a degree at this or any other tertiary institution. All resources, quotations and citations from literature have been acknowledged in-text and referenced in full.



Jessica Versfeld

28 April 2022

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Ethics Certificate

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Faculty of Education

RESEARCH ETHICS COMMITTEE

CLEARANCE CERTIFICATE	CLEARANCE NUMBER: **EP 06/11/01 Ferreira 18-003**
DEGREE AND PROJECT	PhD in Educational Psychology A social connectedness intervention as pathway to teacher resilience in primary schools in challenged spaces
INVESTIGATOR	Ms Jessica Versfeld
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APPROVAL TO COMMENCE STUDY	25 October 2018
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CHAIRPERSON OF ETHICS COMMITTEE:	Prof Funke Omidire

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This Ethics Clearance Certificate should be read in conjunction with the Integrated Declaration Form (D08) which specifies details regarding:

- Compliance with approved research protocol,
- No significant changes,
- Informed consent/assent,
- Adverse experience or undue risk,
- Registered title, and
- Data storage requirements.

Dedication

To my rainbow baby, Ezra, my daughter, Hayley, and my unborn son, Adam. You are my biggest motivation and source of courage.

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Abstract

A social connectedness intervention as a pathway to teacher resilience in primary schools in challenged spaces

Evidence from Africa and other challenged contexts is scant in the emerging teacher resilience knowledge base. This study aimed to investigate the utility of a school-level social connectedness intervention as a pathway to promote teacher resilience given structural disparity and chronic and multiple challenges. A concurrent mixed-methods intervention study design was employed to describe teacher resilience and social connectedness of conveniently sampled teachers (n=36) from six purposively selected peri-urban primary schools from lower socio-economic neighbourhoods in the Eastern Cape, South Africa before and after a social connectedness intervention.

Following a year-long, Participatory Reflection and Action process, the Isithebe Social Connectedness Intervention was co-constructed with teacher participants, implemented over six months, and quantitative and qualitative teacher resilience and social connectedness data were collected at pre-, process and post-intervention timepoints. Whereas qualitative data (verbatim transcriptions and visual data) were thematically analysed, quantitative data were analysed using descriptive and inferential statistics.

Irrespective of the social connectedness intervention, teacher resilience and social connectedness were high amongst teachers–despite the challenged context. The intentional gatherings between teachers led to a significant increase in trust. The teachers acted on a heightened awareness of social connectedness by leveraging school and school-community networks to bond across school spaces. The bonding signifies an enabling pathway to respond to needs using social networks and resources to provide and receive social support from peers, learners, parents, and caregivers. Following the social connectedness intervention, evident enablers of quality education included teacher professionalism (opportunities for professional development via social networks, peers and schools) and teaching and learning competencies (creativity, adaptability, compassion). Enablers of occupational well-being included social connection, acknowledgement of occupational inputs, and experiencing occupational purpose.

This study contributes evidence of an accessible, school-level intervention that, when implemented with teachers working under extreme challenges and constrained structural support, forges trusting school communities. The socially connected spaces enable teachers to capitalise on bonded networks within and across schools and school communities. Plausibly, teacher well-being and quality education are enabled as teachers provide and

receive compassionate implicit social support to acknowledge one another and a shared career purpose. Teachers also use pragmatic explicit social support to share teaching and learning competencies and opportunities for professional development.

Key words: trust; school- and school community social networks; provide and receive social support; teacher professional development; Global South, peri-urban primary schools, challenged contexts, social connectedness, need for relatedness, belonging, building relationships, relationship-resourced resilience, teacher resilience, teaching and learning competencies, quality education and occupational well-being.

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TO WHOM IT MAY CONCERN

The article "A social connectedness intervention as pathway to teacher resilience in primary schools in challenged spaces" by Jessica Versfeld has been proofread and edited for language by me.

I verify that it is ready for publication or public viewing regarding language and style, and it has been formatted as per the journal's prescribed style.

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Kind regards

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List of Abbreviations

APA	American Psychological Association
Bed	Baccalaureus Educationis
BRiTE	Building Resilience in Teacher Education
CFA	Confirmatory factor analysis
CSR	Centre for the Study of Resilience
DBE	Department of Basic Education
ENTREE	ENhancing Teacher REsilience in Europe
FIT-Choice	Factors Influencing Teaching Choice
HIV	Human immunodeficiency virus
JPTD	Junior Phase Teaching Diploma
Mdn	Median
N	Sample size
OECD	Organisation for Economic Co-operation and Development
OPHI	Oxford Poverty & Human Development Initiative
PIRLS	Progress in International Reading Literacy Study
PRA	Participatory Rural Appraisal
PD	Professional development
REPSSI	Regional Psychosocial Support Initiative
RRR	Relationship-Resourced Resilience
SD	Standard deviation
SDGs	Sustainable Developmental Goals
SOC	Sense of coherence
SC	Social Connectedness
SES	Socio-Economic Status
SPSS	Statistical Package for the Social Sciences
Stats SA	Statistics South Africa
TALIS	Teaching and Learning International Survey
T&L	Teaching and learning
TeachEff	Teacher Efficacy
TR	Teacher Resilience
TR-Emot	Teacher Emotion
TR-Mot	Teacher Motivation

TR-Prof	Teacher Professionalism
TR-Soc	Teacher Social Capacity
U	Mann-Whitney test statistic
UN	United Nations
UP	University of Pretoria
WSR	Wilcoxon signed-rank test

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1 Chapter One: Introduction and Context of the Study

1.1 Introduction

Worldwide, teachers are burdened by occupational stress with negative consequences for retention and quality education. In the emerging teacher resilience knowledge base, evidence from Africa remains scant. Evidence of interventions that promote teacher resilience does not necessarily speak to a resource-constrained, structurally disparate South African context. What evidence can school role players in a Global South context draw on to assist teachers to resile despite multiple challenges and a high likelihood of distress with limited structural support where limited resources are unevenly distributed? In this study, the premise was to explore the utility of a low-threshold, school-level teacher resilience intervention that would, on the one hand, not be dependent on structural resources and delivery of teacher professional development and on the other hand, capitalise on the presence of a salient Afrocentric sociocultural resource, namely social connectedness.

Evidence from this study shows that teacher resilience in a challenged context is promoted when teachers get together monthly over arts and crafts, forging a trusting space enabling them to support one another emotionally and professionally. When this social connectedness space is shared with teachers from other schools, the pool of social resources for professional development and emotional support broadens.

Thus, I investigate social connectedness (SC) as a pathway to teacher resilience (TR) in a challenged educational context. Framed in pragmatism, I use a non-experimental pre- and post-intervention mixed-methods research (MMR) design (completed SC and TR questionnaires and verbatim transcriptions of group posters and presentations) with peri-urban [1] primary school teachers (n = 36, male (M) = 2, female (F) = 34). The backdrop to the school-based intervention project[2] aimed at informing knowledge on TR in a challenged context is presented in this chapter.

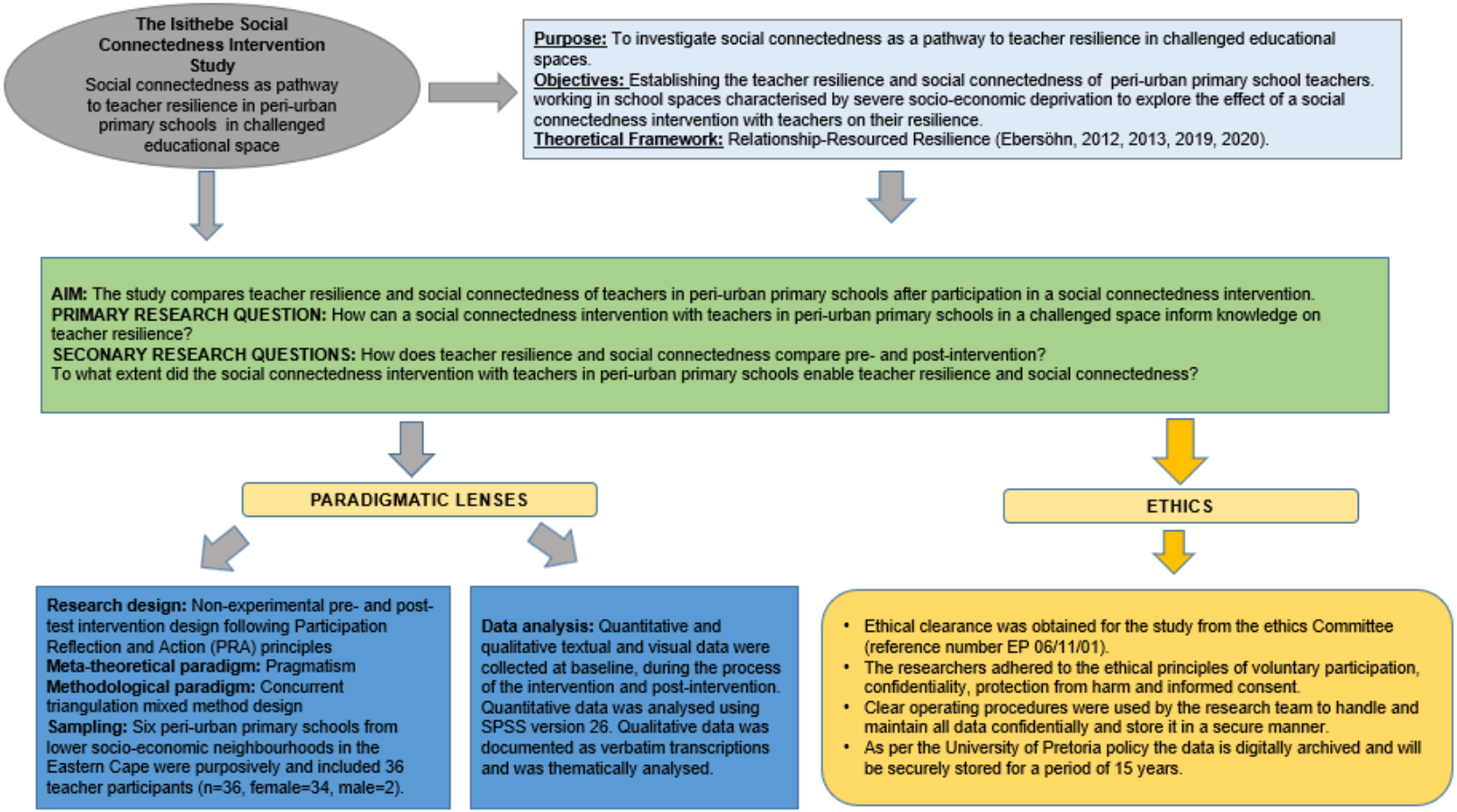
In Section 1.2, I discuss the problem statement and rationale for my study. It is crucial to understand what enables teachers' resilience in difficult situations. In this way, my study endeavours to provide insight into SC as one possible resilience-enabling pathway that can be mobilised to support TR despite continued hardship. In Section 1.3, I discuss the purpose of the research and research questions (RQs), followed by an introduction and overview of the Isithebe SC study in Section 1.4; (see Figure 1.1 for a concise summary of the Isithebe SC study). In Section 1.5, I provide some key theoretical concepts, and in Section 1.6, I discuss the Relationship-Resourced Resilience (RRR) theory as the theoretical framework for

[1] The peri-urban primary schools included in the Isithebe dataset are public government schools situated in an urban space (Nelson Mandela Bay Municipality).
[2] The researcher was one of the research assistants in the project

my study. I then contemplate the paradigmatic lenses pertinent to my study in Section 1.7. I start with an introduction to this topic in Section 1.7.1, followed by Section 1.7.2, where I discuss pragmatism as the meta-theoretical paradigm, and Section 1.7.3, where I discuss an MMR intervention design as the methodological paradigm. In Section 1.8, I provide an overview of methodological choices that directed my study. Section 1.9 discusses my study's ethical considerations, followed by Section 1.10, where I present an outline of my thesis' structure.

Figure 1.1

Summary of the Isithebe SC Study



1.2 Problem Statement and Rationale

With my study, I intend to fill a gap in the growing body of knowledge on TR in a challenged educational context by exploring SC as one possible resilience-enabling pathway. While the benefits of SC are apparent in many branches of psychological research (Lee et al., 2001; Seppala et al., 2013), the role of SC on TR in challenged contexts has received significantly less attention. SC denotes meaningful interactions outside of work: family and intimate friends, co-workers, neighbours, and larger groups and communities to which we belong (Delle Fave & Soosai-Nathan, 2014; Fishbane, 2007; Seppala et al., 2013; Stavrova & Luhmann, 2016; Zavaleta et al., 2014, 2017).

SC may be viewed as a relational resource that can be mobilised as a pathway to support TR from a TR perspective. Current literature defines TR processes where teachers employ available socio-ecological protective resources (including coping strategies) to enable teachers to stay in the profession when faced with continued hardships (Ebersöhn, 2019; Gu, 2018; Mansfield et al., 2016; Wosnitza et al., 2018). A strained educational context requires considering available pathways (resources, opportunities, structures and assets) that are mobilised to enable TR by supporting teacher well-being and job satisfaction (Ebersöhn, 2014; Gu & Day, 2013).

A range of structural and contextual resilience-enabling pathways allow for successful adaptation to adversity, especially in contexts of structural disparity (Ebersöhn, 2014; Mansfield et al., 2016; Ungar, 2012). Ebersöhn (2012) proposes that resilience is enabled when coordinated relational actions connect and mobilise resources in challenged ecologies. TR is viewed as a multidimensional phenomenon that arises from combining individual qualities and contextual circumstances (Gu, 2018; Wosnitza et al., 2018). From this perspective, the burden is no longer solely on teachers to harness their inherent ability to be resilient. Instead, the systems and communities surrounding the teachers function in bi-directional processes to support TR (Ebersöhn, 2014; Gu, 2018; Masten et al., 2009; Ungar, 2012). An intended outcome of TR is the development of high-quality teachers who enjoy their work and are satisfied with their jobs, and can maintain motivation and commitment throughout their careers (Ebersöhn, 2014; Gu, 2018; Mansfield et al., 2016).

Teaching is a demanding profession that requires resilience (Boakye & Amepiah, 2017; Wosnitza et al., 2018). Teachers face enormous expectations regarding increased workloads, multiple jobs, limited opportunities, and remuneration in school contexts (Gu & Day, 2013; Gu, 2018; Wosnitza et al., 2018). Despite enormous internal and external constraints, research shows that numerous teachers across the globe have remained passionate and committed to the profession (Gu, 2014; Hong, 2012). At a time when the modern teaching landscape is beset by ongoing government policy transformations that have

intensified teachers' workload, it would be beneficial to delve deeper into TR from a social-ecological standpoint as a relational concept (Gu, 2014, 2018; Mansfield et al., 2016; Theron, 2016). In the past, TR literature has focused on the profession's challenges (such as teacher burnout, discipline problems, poor professional prospects) instead of resilience-enabling pathways and protective resources (Borman & Dowling, 2008; Day et al., 2011). However, recent TR literature has focused on why teachers can stay in the profession despite their challenged circumstances, enjoy job satisfaction, and provide quality education[3] (Ebersöhn, 2019; Gu, 2014, 2018).

"A systems approach emphasises the importance of looking into teachers' inner and outer professional worlds to understand why so many remain motivated and passionate about making a difference" (Ebersöhn et al., 2019, p. 4). SC is one socio-ecological resource that could improve TR. SC can generate shared emotional and intellectual capital, driving teacher professional development (PD) and, as a result, allowing teachers to build and improve their resilience capacities (Brunetti, 2006; Fritz & Smit, 2008; Gu, 2014; Theron, 2018). TR literature has stressed the importance of relationships in building resilience and, more specifically, how these relationships need to be characterised by support and reciprocity to reinforce people's innate personal networks that involve self-efficacy, positive emotions and adaptive problem solving (Le Cornu & Ewing, 2008; Ebersöhn & Loots, 2017; Gu, 2014; Luthar & Brown, 2007). In South African research (Ebersöhn, 2012, 2013, 2019), the relational resilience pathway of "flocking" (Ebersöhn, 2012, p. 30) has been identified as resilience-enabling for teachers in challenged contexts, where teachers are buffered against isolation by capitalising on relationships with people around them.

TR research in the Global North4 has extensively explored the personal and contextual factors relating to TR and pathways that support resilience. However, more research is still needed in education settings in the Global South, especially in challenged education contexts. The Global South represents a symbolic designation applied to low-income and marginalised societies (Dados & Connell, 2011). The Global North and Global South divide does not necessarily signify literal geographic separation as these regions are sometimes interwoven and even at times found within one another (Trefzer et al., 2014). South Africa, situated in the Global South, is currently regarded as an upper-middle-income country (UMIC) (economies

[3] Quality education entails a complicated system that includes quality learners, surroundings, material, processes, and outcomes. Quality education is indicated as one of the United Nations' (UN) Sustainable Developmental Goals to "ensure inclusive and equitable quality education and promote lifelong learning" (UN, 2015, p. 14).

[4] The Global North and the Global South are the two economic worlds that span across the globe. The economically developed countries of Europe, North America, South Africa, and Australia are represented by the Global North, whereas the economically developing countries of Africa, India, Brazil, and Mexico are represented by the Global South (Odeh, 2010). The Global North denotes privileged circumstances, whereas the Global South denotes countries with a long history of colonisation and current inequality (Dados & Connell, 2012; Montiel, 2018).

with a “Gross National Income per capita between $4,096 and $12,695”) (World Bank, 2022, para. 2). Yet, South Africa is considered one of the world’s most unequal countries, as measured by the Gini coefficient5, where economic growth has stagnated, and unemployment rates continue to rise (Francis & Webster, 2019; World Bank, 2022).

Education is essential for economic stability, growth, and scientific and technological advancement in a post-colonial nation like South Africa. Education must provide a constant supply of appropriate skills, knowledge, and attitudes to develop the economy (Mahler, 2017). Yet, transforming post-colonial societies are characterised by enduring structural disparities and disruptions, including inequality and disproportionate service distribution. The ongoing unevenness of educational pathways is a prime example of this inequality (Ebersöhn, 2019). Teaching is regarded as one of the most stressful jobs in the twenty-first century (Gallant & Riley, 2014). However, “for teachers in a Global South context, who are faced with severe and chronic hardship” (Ebersöhn et al., 2020, p. 2), being cut off from support and feelings of isolation add to the strain on teachers, increasing the risk of burnout, attrition, and lower-quality education (Majhanovich, 2016; Simkins, 2015).

Within a challenged educational context, TR is important, given that such challenges predict negative outcomes for teacher quality. South African teachers face massive challenges in providing quality education to those who need it most (Ebersöhn, 2017; Montiel, 2018). Most public schools in South Africa are positioned in poor, underdeveloped, rural communities where socio-economic challenges directly influence teachers’ commitment and quality of teaching (Ebersöhn & Loots, 2017; Spaull, 2013). Poverty-related obstacles in education include: a lack of books and teaching and learning (T&L) materials, large classrooms with too many learners, poor facilities, low pass rates, lack of enough teachers, poor quality teachers (Ebersöhn, 2014; Ebersöhn & Loots, 2017), limited PD, health difficulties, precarious livelihoods of learners and their families, and inadequate school infrastructure (Ebersöhn & Loots, 2016; Levine, 2014). Additional contextual problems that face South African schools include HIV (human immunodeficiency virus) and AIDS (acquired immunodeficiency syndrome), poverty, and child-headed households (Ebersöhn & Loots, 2017). The OECD, which stands for the “Organisation for Economic Co-operation and Development” (OECD, n.d., Who are we section, para. 1), has identified limited access to digital technology for T&L instruction as another significant problem South African teachers face (OECD, 2019). South African teachers reported some of the longest working hours, a high percentage of learners whose home language is not the language of instruction, and one the highest incidences of discipline problems (OECD, 2019).

[5]The Gini coefficient used in economics to describe how much a country's wealth distribution deviates from being completely equal (OECD, n.d.)

As most research on TR has been conducted in the Global North, in Eurocentric contexts, it is important to include the Global South and non-Western evidence in global discourses on TR (Ebersöhn, 2017; Mansfield et al., 2016). Research on what enables TR in South Africa could plausibly be an exemplar of TR in a Global South, post-colonial context. Although some South African research has explored personal and contextual protective resources and pathways that promote TR, there is still a need for more research that explores how Afrocentric discourses may shape resilience processes amid continued hardship (Ebersöhn, 2012; Phasha, 2010; Theron, 2012; Theron & Theron, 2014). Additionally, current insights on what enables positive education outcomes in South Africa are drawn from mostly single case studies, resulting in fragmented conceptualisations and limited evidence-based bodies of knowledge for education interventions (Ebersöhn, 2016). Therefore, the need for collaborative and rigorous education research to deliberately build a body of knowledge on pathways that support positive educational outcomes in a post-colonial South African context becomes important. My study aimed to describe to what extent an SC intervention with teachers may enable TR in a challenged educational context in South Africa. Additionally, my study aimed to generate novel insights on SC as a protective resource available to teachers in the Global South to help them resile despite chronic and severe challenges.

1.3 Purpose and Research Questions

A concurrent MMR intervention design was employed to describe the TR and SC of peri-urban primary school teachers before and after an SC intervention (Gravetter & Forzano, 2018; Zartman, 2012). Purposive sampling was used to construct a sample representative of schools in a challenged educational space with structural and environmental challenges (Ebersöhn, 2016). An SC intervention was co-constructed and implemented with teacher participants over a year using a Participatory Rural Appraisal (PRA) (Chambers, 2004). I sampled 36 teacher participants for my study from peri-urban primary schools in the Eastern Cape (EC). This province has the second-highest poverty levels of all the provinces in South Africa (Department of Education [DoE] EC, 2021) to fit the criteria of challenged characteristics of adversity synonymous with a Global South post-colonial context.

QUAN+QUAL methods were used to explore SC as a pathway to support teachers to continue in the teaching profession despite continued hardship. MMR approaches have more flexible and wide-ranging definitions and methodologies than purely quantitative approaches. They are better suited to address the challenges of understanding the essence and dynamics of human thinking, social change, and experience in the post-colonial South African world (Nwoye, 2018). The qualitative PRA data collection (which is discussed in Section 3.6.3 in Chapter 3) created a space to accommodate a diversity of participant perspectives (Chambers, 2004; Ebersöhn, 2014; Ferreira, 2006), resulting in rich, relevant data collection

in a real-life setting (Patton, 2002; Willig, 2012). An MMR intervention design was effective as it allowed me to collect different data points (pre-, process and post-intervention) and compare them in a manner that satisfied the principal aim of my study (i.e. the investigation of how SC potentially functions as a resilience-enabling pathway to TR in challenged educational contexts).

The main limitation of the MMR intervention design in my study is the small sample size (pre-intervention $n = 36$ teachers, post-intervention $n = 22$ teachers; where n denotes "sample size") which served as a hindrance to my study's transferability (discussed in Section 3.8.4 in Chapter 3). Researchers can improve the quality of generalisation and knowledge acquisition by spending more time thinking about their concepts and data rather than disproportionately focusing on procedures (Maree & Pietersen, 2019). During the data collecting process, thorough reflection on the setting, the participants, and the data collection yielded insights that improved my study's rigour (discussed in Section 3.7 in Chapter 3). In this regard, my study relied on an MMR intervention design to integrate analytic measures to transfer evidence across QUAN+QUAL methodologies to provide stronger interpretations of RQs.

The research aims to describe how an SC intervention with teachers in peri-urban primary schools in a challenged educational context may inform knowledge on TR. As most research on TR has been conducted in the Global North, in Eurocentric contexts (Ebersöhn, 2017; Mansfield et al., 2016), it is imperative to include the Global South and Non-Western evidence in global discourses on TR. As my study is descriptive in nature, it does not involve the formulation of a problem for further investigation, as does exploratory research (Maree, 2019). Rather, my study aims to describe how participation in an SC intervention for teachers working in a South African challenged educational context may inform knowledge on TR. Although a descriptive study does not produce new information in the form of hypotheses, it provides valuable information on groups in a specific context and is generally more reliable due to a pre-planned and structured approach that reduces researcher bias (Maree, 2019).

The QUAN+QUAL questions directing my study aimed to describe the TR and SC of peri-urban primary school teachers before and after participation in an SC intervention. I describe intervention results and compare pre- and post-intervention results for both TR and SC to investigate how an SC intervention may enable TR within a challenged educational context (Gravetter & Forzano, 2018). After that, I present my study's findings that address the RQs. The RQs aimed to explore how an SC intervention with teachers in peri-urban primary schools affected TR and SC.

The primary RQ (PRQ) directing my study is:

"How can an SC intervention with teachers in peri-urban primary schools in a challenged educational context inform knowledge on TR?"

The secondary RQs (SRQs) directing my study are:

SRQ1: “How does SC compare pre- and post-intervention?”

SRQ2: “To what extent did the SC intervention with teachers in peri-urban primary schools enable SC?”

SRQ3: “How does TR compare pre- and post-intervention?”

SRQ4: “To what extent did the SC intervention with teachers in peri-urban primary schools enable TR?”

Table 1.1 provides an overview of my study’s objectives and operationalises the research purposes with aligned RQs and data collection methods.

Table 1.1

Research Purpose and Aligned RQs and Data Collection

PRQ	Objective	SRQs	Data collection	
			Quantitative	Qualitative
How can an SC intervention with teachers in peri-urban primary schools in a challenged educational context inform knowledge on TR?	To compare SC pre- and post-intervention.	How does SC compare pre- and post-intervention?	Completed questionnaires from Regional Psychosocial Support Initiative (REPSSI) SC scale – refer to Appendix C	PRA posters (refer to Appendix F), verbatim transcriptions of group presentations, researcher journal (refer to Appendix G)
	To investigate if an SC intervention with teachers can enable SC.	To what extent did the SC intervention with teachers in peri-urban primary schools enable SC?	Completed questionnaires from REPSSI SC scale - refer to Appendix C	PRA posters (refer to Appendix F), verbatim transcriptions of group presentations (refer to Appendix E), visual data (refer to Photographs 1-65, researcher journal (refer to Appendix G)
	To compare TR pre- and post-intervention.	How does TR compare pre and post-intervention?	Completed questionnaires from ENTRÉE TR scale – refer to Appendix B	PRA posters (refer to Appendix F), verbatim transcriptions of group presentations (refer to Appendix E), researcher journal (refer to Appendix G)
	To investigate if an SC intervention with teachers can enable TR.	To what extent did the SC intervention with teachers in peri-urban primary schools enable TR?	Completed questionnaires from ENTRÉE TR scale – refer to Appendix B	PRA posters (refer to Appendix F), verbatim transcriptions of group presentations (refer to Appendix E), visual data (refer to Photographs 1-65), researcher journal (refer to Appendix G)

1.4 Background to the Study: The Isithebe SC Intervention Study

My study is nested within the Centre for the Study of Resilience (CSR), University of Pretoria intervention study, "Isithebe[6] intervention study" (funded by the Samuel Family Foundation via the Synergos Institute[7]). The study was designed in conjunction with a teacher group, "Imbumba Yabafundiso Ntsapho"[8]. Section 3.3 in Chapter 3 outlines the development and implementation of the Isithebe intervention. The intervention was piloted and refined and is now available as an evidence-based resource (the "Isithebe SC Intervention Manual" [see Appendix A]) along with the published Synergos report on the outline and results of the "Isithebe" study on the CSR website[9].

Isithebe aspires to (i) consciously structure teacher SC inside and across schools, (ii) "establish a routine of deliberate social connection amongst teachers in their varied circles" (Ebersöhn et al., 2020, p. 13), and (iii) promote teacher relationships outside of school-group sessions. The Isithebe intervention leveraged the benefits of art therapy principles[10] to promote SC between teachers intentionally. Fellowship, relaxation and creativity when people engage in art activities enable SC and buffer against social isolation (Maujean et al., 2014; Stepney, 2017).

The ability to express oneself artistically is an ingrained part of the human experience (Liebmann, 2004). Instead of aiming for aesthetically acceptable end results to be judged by external criteria, the importance of art as a tool is to express oneself. This kind of expression is accessible to everyone, not just those with artistic abilities (Liebmann, 2004). Many proponents of art therapy would agree that it creates favourable outcomes for those who participate in the creative therapeutic process (Dye, 2018; Liebmann, 2004; Malchiodi, 2012; Slayton et al., 2010). The documented benefits of art therapy include: facilitating resilience, healthy expression of emotion, providing a safe space for emotional experience, promoting a positive self-image, focusing on positive behaviours, and increasing self-awareness (Dye, 2018; Maujean et al., 2014; Stepney, 2017).

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[6] Isithebe is a symbol of reuniting families, bringing people together, and eliminating solitude. Isithebe demonstrates "nurturing, trust, comfort, care and support, and a strong interest in one other" (Ebersöhn, 2020, p. 3).

[7] Synergos is a global non-profit organisation dedicated to assisting in the resolution of complicated challenges around the world by promoting bridge leadership that fosters trust and collective action. (https://www.synergos.org/about).

[8] An isiXhosa phrase signifying "strong teacher relationships". All participating schools and teachers named the group and formed part of the group.

[9] https://www.up.ac.za/centre-of-the-study-of-resilience/article/2931931/isithebe-social-connectedness-intervention-study-prof-liesel-ebershn-and-the-synergos-institute

[10] The focus on nonverbal communication and creative processes, and the provision of a trustworthy, safe atmosphere in which individuals can create trusting connections, are the common ground for all art activities (Malchiodi, 2012).

The arts activities used as part of the intervention were not art therapy per se but rather used art activities to facilitate relaxation, creativity and SC. Each school received an "Isithebe Kit" containing carefully packaged art and craft materials and activities for each meeting (see Photographs 1 to 3). Instructions on using the arts and crafts were included in each activity kit. Each activity was created to strengthen bonds between co-workers and people outside the school. Photographs 4 to 11 show photos of participating teachers during Isithebe intervention sessions from September 2018 to September 2019. Visual documentation assisted me in presenting visual illustrations of the Isithebe SC intervention process and constructing an illustration of the specific contexts where my research took place (Ebersöhn & Eloff, 2007). Throughout Chapter 1 and Chapter 3, Photographs 1 to 62 display the activities and participants involved throughout the intervention.

Figure 1.2

Photographs 1-3: "Isithebe Kit" containing arts and crafts for each session's art activity

Note: Photographs taken by the researcher with consent from the participants

Figure 1.3

Photographs 6-7: Teachers who took part in Isithebe intervention sessions

Note: Photographs taken by the researcher between September 2018 and September 2019 with consent from the participants

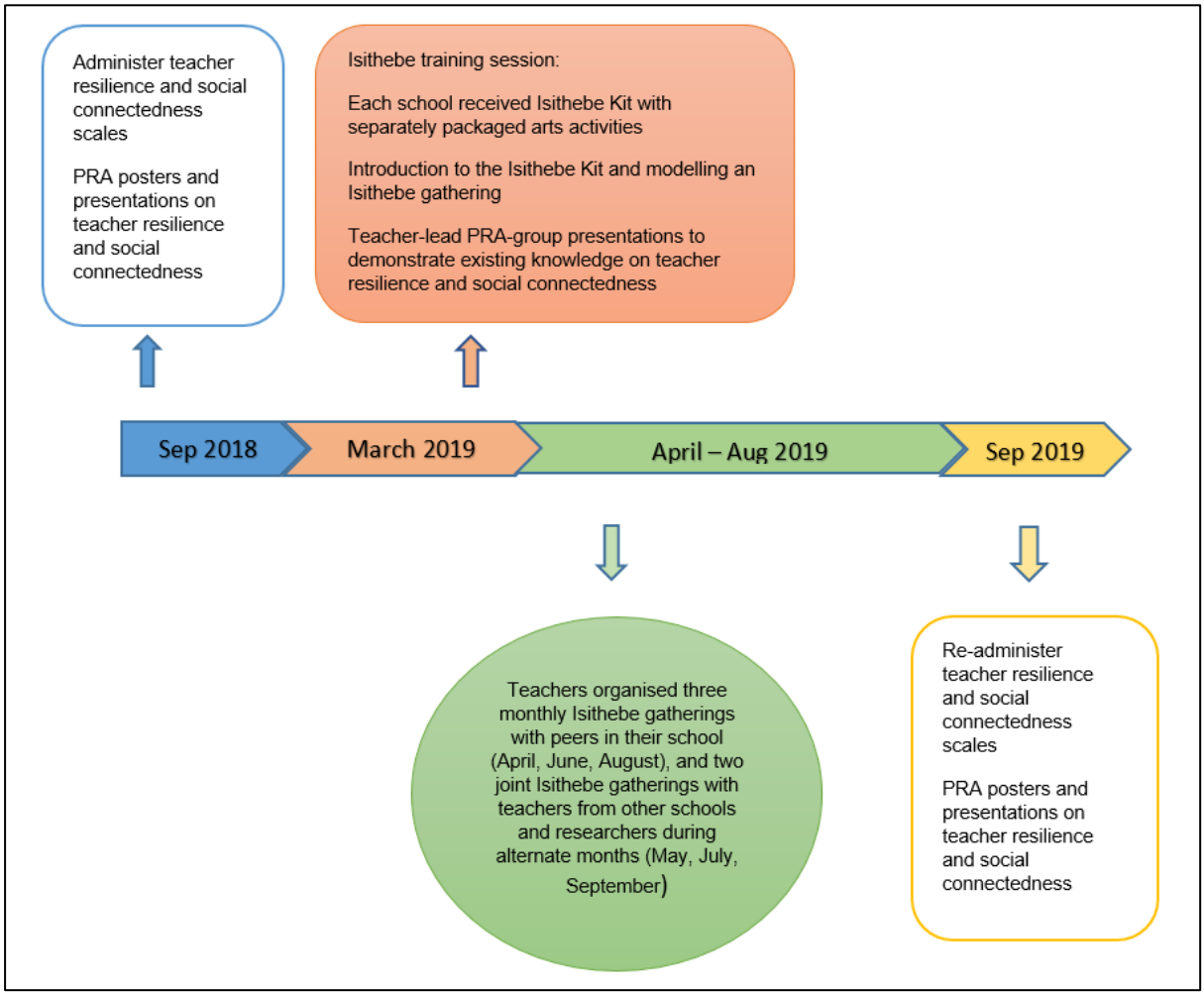
Mixed-method teacher data was generated in September 2018 with 36 teachers from all six participating schools. In March 2019, the researchers conducted a six-hour intervention training session with thirty teachers from all six schools (see Appendix A). There were six intervention sessions over the next six months (one per month). The Isithebe intervention sessions alternated between the school-specific Isithebe-meetings and three joint-school Isithebe-meetings – the latter in which researchers participated.

Qualitative data generation was informed by PRA principles. All teachers per school organised the school-specific Isithebe gatherings (April 2019, June 2019, and August 2019). The focus of the different workshops was on teacher bonding within a specific school (Synergos, 2017). Three joint-school Isithebe sessions, each lasting about two hours (27 May 2019 and 29 July 2019), were held in a central location (usually the Department of Basic Education (DBE)'s appropriate district office). Qualitative data were collected before the intervention (18 September 2018), after the intervention (21 September 2019), and twice during the intervention process (collected at joint teacher-researcher meetings that took place 27 May 2019 and 29 July 2019). Teachers were given the same pre-intervention TR (ENTRÉE) and SC (REPSSI) questionnaires at the end of the intervention. On 21 September 2019, 15 teachers attended a post-intervention session, and an additional seven questionnaires were gathered via email. Pre- and post-intervention data and joint teacher-researcher Isithebe gatherings consisted of (i) oral school-group poster presentations that were audio-recorded and verbatim transcribed, and (ii) "observation and field notes-documented as both visual and textual data" (Ebersöhn et al., 2020, p. 7). WhatsApp was

used as a platform for teachers to capture and document teacher gatherings when researchers were not present. Figure 1.4 shows an overview of the Isithebe timeline.

Figure 1.4

Timeline of Isithebe SC Intervention



I favour the lens of implementation science for intervention research in my study. Implementation science provides a framework for effectively managing the implementation of new programs or practices and provides a valuable model emphasising the implementation of evidence-based research in professional practice (Nilsen, 2015). Implementation science explores how to create change at the personal, organisational and more general levels. Furthermore, implementation science aims to achieve an enhanced understanding of what enables change within systems. A strained educational context requires considering the available pathways (resources, opportunities, structures and assets) to allow TR and support teacher well-being and job satisfaction (Ebersöhn, 2014; Gu & Day, 2013). Implementation science explores the pertinent enablers that may influence the implementation of effective

interventions (Albers & Pattuwage, 2017). Section 3.3 details using the implementation science and PRA principles in developing the intervention.

1.5 Key Theoretical Concepts

1.5.1 Social Connectedness

People that are socially connected have significant interactions with their peers, family, and communities (Delle Fave & Soosai-Nathan, 2014; Fishbane, 2007; Seppala et al., 2013; Stavrova & Luhmann, 2016). The absence of SC denotes social isolation and exclusion (Salimi & Bozorgpour, 2012; Zavaleta et al., 2014, 2017). This working definition of SC is operationalised in my study using an SC questionnaire compiled by REPSSI, underpinned by the Oxford Poverty and Human Development Initiative's (OPHI's) SC proposal (REPSSI, 2016). SC is conceptualised and measured by OPHI using literature on social capital, social exclusion, social cohesiveness, and "psychological theories of loneliness" (Zavaleta et al., 2014, p. 3). Internal SC (a person's subjective impression of their own degree of connection in the social environment) and external SC (objective measures of an individual's social interactions) are two types of SC identified by OPHI (Zavaleta et al., 2014). The scale includes questions relating to internal SC, including those on social-emotional competence, need for relatedness, belonging vs loneliness/isolation and trust, and some questions on external SC, such as the number of one's social contacts (Zavaleta et al., 2014).

For my study, SC denotes aspects of the social dimensions of TR. From a TR perspective, SC is viewed as a protective resource that can be mobilised as a pathway to support TR (Ebersöhn, 2012, 2013, 2019; Ebersöhn & Loots, 2017; Gu, 2014; Theron, 2016). For the quantitative component of my study, I compare pre- and post-intervention SC scores to determine what impact (if any) an SC intervention with teachers in peri-urban primary schools may have on SC. The qualitative component of my study aimed to explore the pertinent SC as an enabling pathway for teachers working in challenged contexts. Qualitative PRA indicators of SC included awareness and appreciation of SC; networking capacity; bonding within and across social networks; a sense of belonging; and proclivity for receiving and providing implicit and explicit social support.

1.5.2 School-Based Interventions

School-based interventions are a set of deliberate and well-thought-out techniques for modifying or introducing evidence-based methodologies, practices, approaches, programs, or policies in the classroom to improve social and emotional outcomes (Century & Cassata, 2016). In my study, school-based intervention research denotes the Isithebe SC intervention study. Effective school-based implementation requires considerable resources, entailing time, money, and human resources (Murphy, 2015). Additionally, intervention research in schools

has become increasingly more complicated and more important as teachers struggle with fewer resources and researchers with how to intervene effectively in a given context (Greene, 2015; Murphy, 2015).

School-based interventions range in complexity and can reside at one or more system levels, e.g. classroom, school, province or nationally (Century & Cassata, 2016). The goal of the Isithebe SC Intervention study was to see if structured SC activities (indicated by teachers coming together regularly to enjoy arts activities together) enabled teachers to feel more connected (rather than isolated and lonely) in relaxed and creative ways that support them to resile professionally – despite the hardship of challenged contexts in which they teach (and live). Section 3.3 in Chapter 3 details the use of implementation science in developing the intervention.

1.5.3 Resilience

Currently, the literature recognises resilience as a multifaceted process that draws on various contextual and personal resources interacting in a complex manner over time (Beltman et al., 2011; Ebersöhn, 2017; Mansfield, 2018; Strümpfer, 2013). Resilience results when vulnerable people and their ecologies cooperate in providing and capitalising on life-sustaining resources (Theron & Malindi, 2010). Additionally, resilience is process orientated and explores how adversity and risk in one system co-exist and mobilise protective resources in aligned systems (Ebersöhn, 2016). Research highlights resilience as a dynamic process that requires adaptive responses in adverse conditions to achieve positive outcomes (Beltman et al., 2011; Ebersöhn, 2017; Mansfield, 2018). A shift in resilience research resulted in less focus on the individual and a move towards understanding the relevance of the individual's context (Ungar, 2012). Due to the interconnectedness of systems, the capacity to adapt is dynamic and ever-changing depending on how factors influence different domains of the system (Masten, 2018).

Research on resilience has established empirical evidence for situational and environmental factors, which entails significantly more intricate elements than only internal characteristics or assets (Theron & Theron, 2010). Individuals, their environments, and the process by which they overcome adversity at various points in their lives all add to the complexity of resilience (Beltman & Mansfield, 2018; Liebenberg et al., 2016; Masten, 2001; Maurović et al., 2020). Resilience is defined as the ability to achieve better-than-expected results despite adversity and the dynamic processes that contribute to positive development (Masten, 2001; Ungar, 2011). Current views of this notion of resilience emphasise risk management despite the chronic and cumulative constraints of working within a challenged context. Ebersöhn (2012, 2013, 2019) proposes an analytical framework of RRR as one indigenous pathway to resilience in adverse South African environments. My study aims to explore the potential benefits of SC as a pathway to resilience. In the context of my study,

pathways to resilience are operationalised as adaptive processes employed where hardship has an enduring impact on functioning (Ebersöhn, 2014; Skinner & Zimmer-Gembeck, 2007). Ebersöhn (2014) positions resilience processes in poverty as a "lifeline chain" (Ebersöhn, 2014, p. 1), where incidences of positive adaptation are linked to one another, enabling individuals and communities to adapt to chronic hardship.

1.5.4 Teacher Resilience

For my study, TR is aligned with studies done in similar contexts where chronic and cumulative risk prevails (Coetzee et al., 2015; Ebersöhn & Loots, 2017). As discussed in Section 1.5.3, resilience in severe adversity requires adaptation and the use of available protective resources to achieve positive outcomes. There may be fewer opportunities to distribute resources in less equitable communities. (Ebersöhn, 2017). The availability of resources or capital, such as spiritual, social and cultural resources, feeds into the resilience process (Ebersöhn, 2017; Papatraianou et al., 2018). Resilience includes teachers' adaptation to constraints, focusing on individual characteristics, strategies and the use of available protective resources. It is assumed that teachers can recognise, navigate and access these resources to manage adversity (Ebersöhn, 2014, 2017). Thus, TR is defined as teachers who can cope within a stressful education system by drawing on individual and environmental resources that enable them to adapt despite significant stressors (Coetzee et al., 2015).

Teacher resilience enables unexpected positive consequences, such as improved well-being, job satisfaction, commitment, retention, and quality of education (Gu & Day, 2013; Mansfield et al., 2016). Occupational well-being encapsulates enabling coping mechanisms, traits, or strategies that are reported to assist teachers in maintaining a positive work-life balance to enhance job satisfaction and counteract stress and burnout inherent in the profession (Ainsworth & Oldfield, 2019; Wosnitza et al., 2018). Important coping mechanisms reported for teacher occupational well-being include good self-care habits, focusing on emotional, physical and mental wellness, an optimistic mindset, positive self-talk, and effective time management (Mansfield et al., 2016; Wosnitza et al., 2018). Furthermore, teacher well-being and job satisfaction may be indicators of teacher adaptation, which is critical for teacher retention (Ainsworth & Oldfield, 2019). Therefore, teacher resilience focuses on thriving teachers who deliver high-quality education, regardless of career stage, to all learners in different contexts (Gu & Day, 2013; Mansfield et al., 2016). Quality education can be defined as beneficial contributions from both teachers and learners that create the potential to improve lives, particularly for the youth (Pareek & Rathore, 2016). These conditions, in turn, encourage teacher commitment and retention, which may result in higher learner performance (Gu & Day, 2013; Pareek & Rathore, 2016).

The ENTRÉE scale with revised contextual questions was administered as part of the quantitative measurements before and after the intervention. “The ENTRÉE project was guided by a comprehensive definition of resilience developed from research associated with previous Australian projects” (Beltman & Mansfield, 2018, p. 4). In my study, “teacher resilience” refers to the ability of peri-urban primary school teachers to resile (in challenged contexts). TR was indicated in measures as “teacher professionalism, teacher emotion, teacher motivation, teacher sense of coherence, teacher efficacy” (Ebersöhn et al., 2020, p. 2), contextual factors and TR. Qualitative PRA indicators of TR included enablers of quality education (teacher professionalism – including leveraging social networks for PD – and T&L competencies) and enablers of occupational well-being (teacher adaptability; showing compassion for learners; acknowledgement of occupational inputs; and experiencing career purpose).

1.5.5 Teachers in Peri-Urban Primary Schools

A primary school is a school that accommodates children from Grade 1 up to Grade 7 (DBE, 2009). The peri-urban primary schools included in the Isithebe dataset are public government schools situated in an urban space (Nelson Mandela Bay Municipality). In my study, the term “teachers in peri-urban primary schools” specifically refers to 36 teachers at six peri-urban primary schools in the EC (n = 36, M = 2, F = 34).

1.5.6 Schools in Challenged Educational Contexts

For my study, challenged educational contexts denote schools in resource-constrained areas that may face structural and socio-ecological issues (Ebersöhn & Loots, 2017). My study's specific challenged educational context is public government peri-urban primary schools in an EC city. This province is largely characterised by a lack of formal housing, restricted access to drinking water, limited or no access to electricity, high levels of orphanhood (especially due to HIV/AIDS), crime, inadequate education, and poverty (StatsSA, 2018). Teachers from the six peri-urban primary schools who participated in my study live and teach in challenged educational contexts. Schools that met the requirements of the DBE’s “Quintile 3 categorisation - indicating that no school fees may be charged” (Ebersöhn et al., 2020, p. 10) - were designated as “challenged educational context” (Dass & Rinquest, 2017). The quintiles of the schools, and the socio-economic class of the area, were identified as indicators of challenged contexts. These no-fee-paying schools are usually situated in contexts characterised by disadvantaged socio-economic classes (determined by the level of education and household income) (Mattsson et al., 2017). Additionally, no-fee-paying schools have high learner-to-teacher ratios (LTRs), indicating the likelihood of large class sizes; the annual Government Gazette released by the DoE confirms this pattern (DoE, 2018). Furthermore, learner achievement in Quintile 4 (fee-paying schools with smaller class sizes and lower LTRs)

is significantly higher compared to learners from Quintiles 1, 2 and 3 (non-fee-paying schools) (Dass & Rinquest, 2017).

1.6 Theoretical Framework: Relationship-Resourced Resilience

The chosen theoretical framework for my study is Relationship-Resourced Resilience (RRR) (Ebersöhn, 2012, 2013, 2019), given my study's focus on SC as a pathway to TR. Ebersöhn (2012, 2013, 2019) proposes RRR as an *Afrocentric* resilience theory. RRR theory is based on research conducted with a large sample across multiple resource-constrained settings in Southern Africa. The RRR theory was inductively generated from data collected during three long-term case studies over a fifteen-year timeframe (Ebersöhn, 2019). The researchers partnered with 639 participants from South Africa, Namibia, Lesotho and Swaziland. Participants included women and men, young and older people, and people from urban and rural spaces. The theory's limitations are that it was developed in severely resource-constrained (and often rural) settings and may not be relevant to more affluent, urban contexts (Ebersöhn, 2019). Participants were mainly female, with low education and literacy levels. Lastly, as the theory was generated through a psychological lens of resilience, alternative conclusions may have been drawn through a different theoretical lens (Ebersöhn, 2019).

The African belief system of "Ubuntu" is a belief that understands identity as it emerges through relationships. In an African worldview, the individual is less important than the social and emotional bonds that bind people together. These ties are a component of every community member's responsibilities (Ebersöhn et al., 2014). The RRR-model proposes that "collective responses can be innovative and sustainable when scattered individuals link with each other (support seeking, affiliation) and share existing resources" (Ebersöhn, 2012, p. 30).

RRR posits that in indigenous, "Ubuntu"-Afrocentric contexts characterised by adversity, SC and leveraging cultural knowledge function as resilience-enabling responses to structural disparity (Ebersöhn, 2019). As such, RRR posits the idea of *collective distress and collective well-being*. Thus, RRR posits collective (rather than individual) assessment of support-seeking and relational resilience. During the turmoil of civic unrest in South Africa in July 2021, flocking to counter collective distress and promote collective well-being was noticeable. Looting and violence erupted in South Africa over many days, ostensibly due to political reasons but more profoundly rooted in expanding poverty and rising inequality (Kalina, 2021). As the violence escalated, inhabitants of South Africa banded together to clear away the collected rubbish and debris left behind, deciding to support reconstruction rather than contributing to the devastation. Many people used social media to present a unified voice of hope and optimism (Ebersöhn, 2021). Some volunteered their time to clean; others shared food and clothing; still others utilised social media to present a cohesive voice of hope and optimism (Ebersöhn, 2021). The response to this catastrophe demonstrated how South

Africans band together to embody the "Ubuntu"[11] ideology in the face of significant hardships by pooling resources and devising ways to distribute shared resources (Ebersöhn, 2021).

RRR illustrates how "relationships can reconfigure a risk ecology" (Ebersöhn, 2012, p. 32) and how individuals can collaborate to facilitate good adjustment through bidirectional transactional processes. Individuals who link internal support to external support as a strategy to capitalise on underlying strengths in systems can reimagine and reconstruct an ecology of adversity, according to RRR (Ebersöhn, 2012). "Flocking" entails individuals coming together to acknowledge that hardships are experienced by groups of interdependent people who connect and share burdens and in turn, mobilise joint resources to enable mutual well-being (Ebersöhn, 2012). "Flocking" functions as a resilience-enabling mechanism to distribute resources to buffer against collective distress and promote outcomes of collective well-being (better than expected outcomes despite severely strained conditions) (Ebersöhn, 2012, 2014, 2019). "Flocking" as social support mobilises social capital, which, in turn, mobilises social and economic capital. Resilience-enabling "flocking" practices include smart partnerships (these partnerships structure the supply management for social support and the use of female-directed societies to collect, monitor, and distribute resources to those in need) and share costs and incomes in financial undertakings (Ebersöhn, 2019). Furthermore, "flocking" is not always limited to using money as a social resource. To assist the well-being of people in need, "flocking" primarily rely on communal resources such as current networks for advice and know-how, collaborating on financial undertakings such as loans and dividing costs, and pursuing cultural goals such as empathy and compassion (Ebersöhn, 2021).

According to RRR, societal structures such as religion and education are essential in supporting resilience and buffering against adversity. Schools and churches appeared to be significant and dependable physical entities to receive social support from high-risk ecologies (Ebersöhn, 2017). An aim of "flocking", as promoted in RRR, is to promote collective resilience, in this case, related to teacher well-being that includes the ability to provide quality teaching (Day & Gu, 2014). In interdependent worldviews, such as "Afrocentric indigenous knowledge systems" (Ebersöhn et al., 2020, p. 25), SC "(with concomitant social support) mirrors culturally salient epistemologies inherent to interdependent worldviews" (Ebersöhn et al., 2020, p. 25). As such, the presence of SC (through flocking) in resource-constrained settings is an available resilience-enabling pathway that may be mobilised in response to adversity (Ebersöhn, 2019; Owusu-Ansah & Mij, 2013).

[11] "Ubuntu" is an IsiZulu word sometimes translated to "I am because we are" and other times to "I am because you are" meaning "humanity to others".

1.7 Paradigmatic Lenses

1.7.1 Introduction

Section 1.7.2 discusses pragmatism as the study's meta-theoretical paradigm, and Section 1.7.3 discusses the use of a concurrent triangulation MMR methodology as the methodological paradigm.

1.7.2 Meta-Theoretical Paradigm: Pragmatism

As I follow a concurrent MMR intervention design, I adopt a pragmatic epistemology. An MMR approach linked with a pragmatic epistemology entails the simultaneous collecting of data using methodologies from both the QUAN+QUAL disciplines to best address the RQs (Creswell & Plano Clark, 2011; Povee & Roberts, 2015). "In terms of ontology, pragmatism accepts that there exists both an objective reality and people's perceptions of reality" (Barnes, 2012, p. 8). MMR researchers have tried to build a suitable philosophical framework since their debut as a third methodological paradigm. (Cameron, 2011). The incompatibility thesis is at the centre of many criticisms of MMR. This criticism is based on the view that because QUAN+QUAL research methodologies have such diverse ontological and epistemological foundations, they cannot be combined in a single study (Hathcoat & Meixner, 2017). Many argue, however, that the incompatibility thesis has been largely debunked because studies have proved that an MMR approach may be used successfully (Biesta, 2010; Cameron, 2011; Denzin, 2014; Hathcoat & Meixner, 2017). Furthermore, pragmatism posits that rich variation exists between quantitative and qualitative epistemologies. As a result, qualitative approaches do not need to be informed solely by interpretivism, and quantitative methods do not need to be guided solely by positivism. In truth, many approaches defy this categorisation, such as qualitative research, which is intrinsically positivist, and quantitative methods, which seek interpretation (Wagner, 2009).

"The challenges of using pragmatism as the meta-theoretical paradigm lie in the rationale behind the choice, epistemological relevance, methodological appropriateness and the proficiency of the researcher" (Leask, 2019, p. 70). Therefore, it is critical for the MMR researcher to recognise and vigorously defend pragmatic techniques and decisions in the face of these criticisms (Cameron, 2011; Guetterman et al., 2019; Plano Clark & Ivankova, 2016), as discussed next in Section 1.7.3.

1.7.3 Methodological Paradigm: Concurrent Triangulation MMR Intervention Design

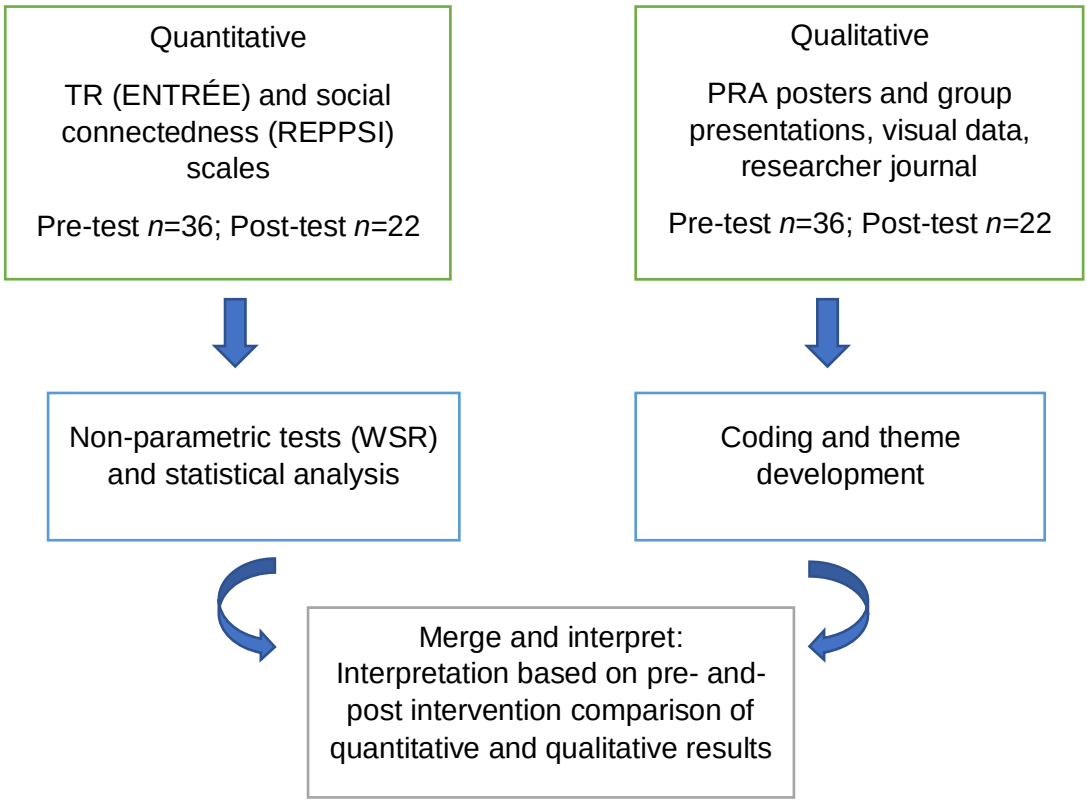
1.7.3.1 Introduction

I used a concurrent triangulation MMR intervention design to generate both QUAN+QUAL data at baseline during the intervention and post-intervention with teachers. During the design

phase, researchers worked out a strategy for collecting both data types so that the data allowed integration of the QUAN+QUAL databases (Fetters et al., 2013). Integrating QUAN+QUAL methodologies in a study is an intentional procedure in which the researcher makes the data interdependent to address the RQs (Ivankova et al., 2019). Figure 1.5 shows an overview of concurrent MMR design. The sample size for pre- and post-test was 36 and 22 teachers, respectively. Following Figure 1.5, the benefits, limitations and criteria for selecting an MMR method was discussed.

Figure 1.5

Overview of Concurrent MMR Design



1.7.3.2 Advantages of MMR

MMR is regarded as the third methodological trend, and it has a lot to offer social science research as a methodology. It arose in reaction to the limits of using only QUAN+QUAL methods, and it is now widely accepted as a credible alternative to these two approaches (Doyle et al., 2016). By extending beyond a strictly descriptive study, research should, above all, lead to a greater understanding and interpretation of phenomena (Johnson & Onwuegbuzie, 2014). MMR aids in addressing the RQs that cannot be addressed by using QUAN or QUAL approaches on their own by providing a more comprehensive toolkit to achieve a study's aim and objectives (Doyle et al., 2016).

MMR approaches have the advantage of providing stronger interpretations of research issues by allowing for more depth and breadth in solving complex social phenomena and allowing for the expression of different points of view (Johnson & Onwuegbuzie, 2014). MMR combines diverse data analytic approaches to allow evidence to be transferred between qualitative and quantitative methodology. By seeking corroboration between QUAN+QUAL data, triangulation improves the validity and trustworthiness of a study (Doyle et al., 2016). MMR can provide quantifiable data from quantitative analysis and rich, nuanced, contextualised narratives of human experiences from qualitative research (Guetterman et al., 2019). As a result, combining research methods yields a more complete and thorough idea of a study (Doyle et al., 2016; Johnson & Onwuegbuzi, 2014).

The ability to combine QUAN+QUAL methodologies within a transformative paradigm is another advantage of MMR (Barnes, 2012). Because of positivism's historical dominance, quantitative studies were frequently embedded with racist and gendered ideas (Duncan & Bowman, 2009). As a result, it's no surprise that qualitative approaches are the preferred method for critical and transformational research (Barnes, 2012; Nwoye, 2018). While qualitative research has advanced our understanding of transformation concerns, there is still a need to comprehend the scope of these issues in post-colonial South Africa. “Pragmatism is a problem-solving, action-oriented inquiry method founded on a commitment to democratic values and progress” (Denzin & Lincoln, 2008). As a result, my MMR literature encourages us to use various methods to learn more about important social justice concerns in South Africa (Barnes, 2012; Nwoye, 2018). Social justice concerns in South Africa include not only material consequences for teachers working in a resource constrained and structurally disparate context like South Africa, but also the suppression of indigenous knowledge generation. In this regard, MMR research has the potential to give a platform to previously suppressed indigenous discourses that can explore the strengths operating in these communities that can be enriched with culturally appropriate professional development opportunities.

1.7.3.3 Limitations of MMR

An MMR study has both a QUAN+QUAL component, but the researcher often has trouble articulating how the two aspects relate to one another (Mengshoel, 2012). A pragmatic paradigm within the research process suggests that the general research approach is to mix data gathering methods and data analysis procedures. The goal of the study questions is directly linked to the approach chosen by pragmatists (Creswell & Plano Clark, 2011). The eclectic nature of pragmatism can be seen as a drawback by relying on the virtues of both qualitative and quantitative methods while downplaying their flaws (Frels et al., 2013; Johnson & Onwuegbuzie, 2014). MMR studies are deemed useful when numerous different but connected research problems are investigated (Mengshoel, 2012). My study was guided by

pragmatism due to the impact of the research aspects on the study rather than addressing the flaws of QUAN+QUAL research. Additionally, legitimation in MMR requires that multiple validities be considered for both the QUAN+QUAL research methodologies (Onwuegbuzie & Johnson, 2006), which are discussed in Section 3.7 in Chapter 3.

Another limitation of MMR approaches is the practical difficulties of collecting QUAN+QUAL data concurrently. The data collection involved coordinating the administration of two different quantitative scales while concurrently facilitating and recording qualitative PRA poster presentations. In addition to the practical difficulties of data collection, the volume and skill required to capture and analyse both QUAN+QUAL may be challenged- a research team may be required in this instance (Doyle et al., 2009). Accordingly, I worked with a research team, and data collection and analysis took place with the help of various members to make multiple data collection procedures possible.

1.7.3.4 Criteria for Choosing MMR

Three characteristics determine the overall purpose of using MMR. These include intent (purpose of using the approach), timing (the sequence of collecting and analysing data) and integration of results (Ivankova et al., 2019). The purpose of concurrent triangulation in MMR design is to compare the two data types by merging the data sets and results during data analysis (Ivankova et al., 2019). “Three outcomes arise from triangulation: convergence, inconsistency, and contradiction” (Johnson et al., 2007, p. 115). Whatever findings prevail, the researcher may have clearer explanations of the social phenomena observed. If the results differ, the cause must be determined and the results re-examined. If the findings converge, the integration may be a valid justification for the quality of the inference (Venkatesh et al., 2014). Furthermore, triangulation increases the researcher's confidence in their findings and encourages the development of novel data collection methods that can result in thicker, richer data (Denzin, 2012).

The overall intent of the research is to explore how an SC intervention may inform knowledge of TR. Accordingly, my study follows an MMR approach to understand TRs’ complexities within a high-risk context. The objective of the proposed school-based intervention study was to explore to what extent an SC intervention with teachers in primary schools can inform knowledge on TR and enable TR in a challenged educational context. It is hypothesised that SC has the potential to create enabling school environments by creating caring and sympathetic communities by implementing evidence-based policies (Ebersöhn, 2017).

Intervention research in a challenged educational context justifies the need for MMR as the complex social context demands analysis that is informed by several and varied perspectives, which are strengthened by the use of MMR (Barnes, 2012; Sammons et al.,

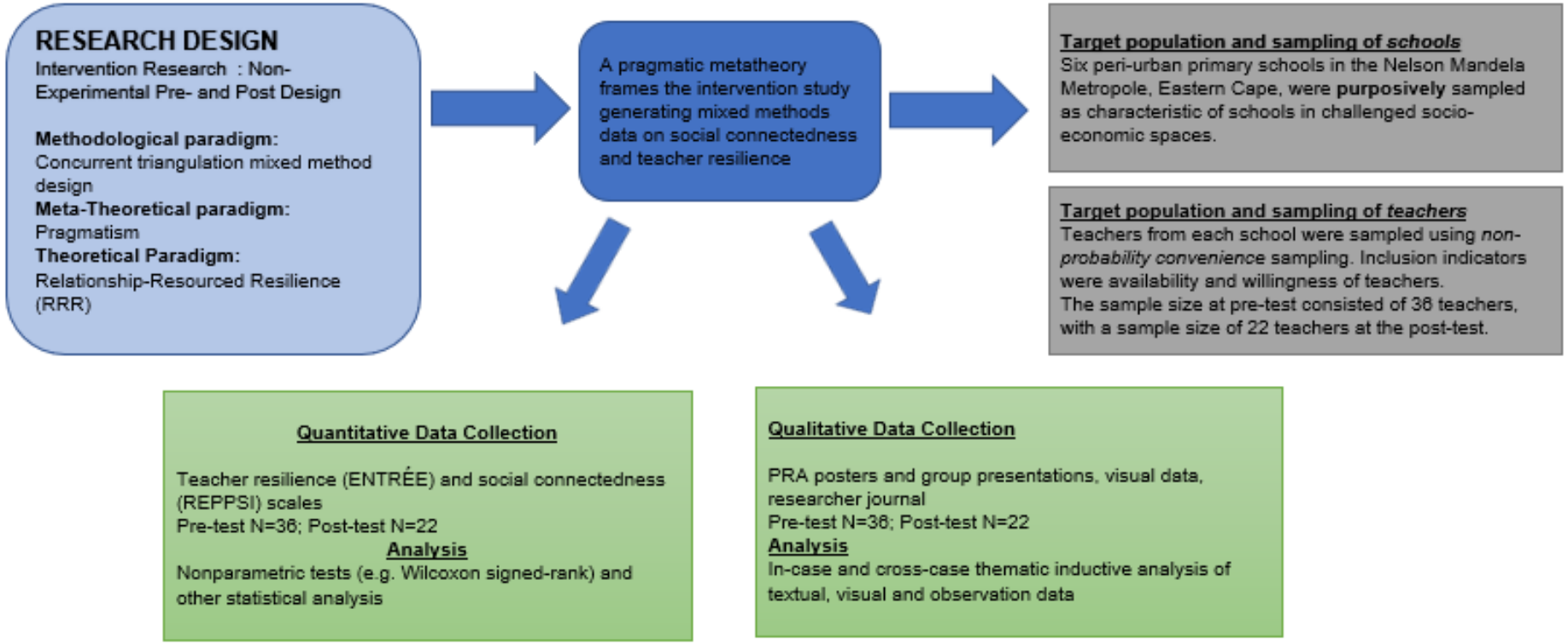
2005). In addition to this, "[s]ingle case studies are prolific in South African education research" (Ebersöhn, 2016, p. 1). Current insights on what enables positive education outcomes are drawn "from fragmented, regional and mostly single case studies, using multiple conceptualisations, measures and indicators" (Ebersöhn, 2016, p. 1). This limitation is addressed in my study by using internationally recognised research constructs while incorporating qualitative research methods to account for the contextual differences in a post-colonial educational context. MMR is appropriate for research concerning minority groups that are difficult to study using quantitative measures alone, hence the need to use a range of methodologies to study oppressed groups extensively while representing in depth the perspectives of persons (Barnes, 2012).

1.8 Research Design and Methodology

As discussed in Section 1.7.3, a non-experimental pre- and post-intervention intervention design (concurrent MMR) was used to generate in-depth data over one year. Figure 1.6 provides an overview of the methodological choices that directed my study, detailed further in Chapter 3.

Figure 1.6

Outline of Methodological Choices that Directed my Study



Schools that fell under the DBE's Quintile 3 categorisation - indicating that no school fees could be charged (Dass & Rinquest, 2017) - were classified as "challenged educational contexts". I purposefully selected six peri-urban primary schools in challenged educational contexts where teachers encounter structural and environmental obstacles. These schools were chosen to illustrate a difficult educational environment in which teachers encounter structural and environmental problems (refer to Section 3.5.2 in Chapter 3 for an in-depth discussion on the sampling of schools).

For the "Isithebe" study, purposive sampling was applied at the school level, whereas convenience was applied to select participating teachers within schools (refer to Section 3.4.3 for a detailed discussion on the sampling of teachers). TR and SC questionnaires were administered pre- and post-intervention. The quantitative measure used for TR included selected items of the ENTRÉE TR scale (refer to Appendix C). The quantitative measure used for SC included selected items from the REPSSI SC scale (refer to Appendix D). Section 3.5 details the quantitative data collection and analysis. PRA principles guided the collection of qualitative data. Section 3.6 in Chapter 3 offers an in-depth discussion of my study's qualitative data collection and data analysis measures.

1.9 Ethical Considerations

In my study, I endeavoured to conduct rigorous research to produce justifiable answers to the RQs (Wassenaar, 2016). Throughout the research process, I was aware of my interpretation of the research process and how my personal history and worldview might have coloured my perceptions of the research outcomes. I kept a research journal to assist me in reflecting on the research process and contain this potential threat to objective research findings (Goodson & Gill, 2011). To limit prejudice on various interpretations after each session, I held regular debriefing sessions with my co-researchers and supervisors. Section 3.7.4 in Chapter 3 discusses the qualitative quality criteria employed in my study.

Morrow et al. (2014) warn of the risk of misrepresentation of participants' views through misinterpretation of qualitative data. The advantages of MMR approaches are that they combine several data analytic processes to allow evidence to be transferred between QUAN+QUAL methodologies. By seeking corroboration between QUAN+QUAL data, triangulation improves the validity of a study (Doyle et al., 2009). MMR can provide quantifiable data drawn from quantitative analysis and rich, nuanced, contextualised narratives of human experiences from qualitative research (Plano Clark & Ivankova, 2016).

Before any research can begin, potential participants must give their informed consent, according to the American Psychological Association's (APA) ethical guidelines and code of conduct manual (APA, 2017). The ramifications of the study protocol must be communicated to research participants (Sheehan & McGee, 2013). As a result, before starting my study, all

participants completed a consent form (see Appendix I). The requirements outlined in the HPCSA's ethical rules of conduct for practitioners (Republic of South Africa [RSA], 2008), where HPCSA stands for "Health Professions Council of South Africa" (HPCSA, 2022, para. 1), were used to create this informed consent form. The permission form also included the researcher and my supervisors' contact information so that the researcher could address any queries participants had about my study (see Appendix B). I advised the participants that they could withdraw from the study at any stage and that participating in the trial would cause them no harm (Maree, 2019).

The participating teachers in my study know the research objectives and that they will be observed. Observation may result in the participants wanting to respond favourably to satisfy the research team and could influence their responses and behaviour (Ebersöhn et al., 2015). To mitigate these challenges, I "adhered to the ethical principles of voluntary participation, confidentiality, protection from harm and informed consent" (Ebersöhn et al., 2020, p. 5). Confidentiality was guaranteed as no names of participants or schools were mentioned in any publications, and identifying details were removed to ensure anonymity as far as possible (Maree, 2016). However, participants gave consent to use visual data showing their identities, thus allowing for the inclusion of photographs taken during the Isithebe study (Maree, 2016).

To obtain consent from an institution to conduct research, the researcher must first provide the institution with full details of the proposed study. The researcher may begin the study only after the institution has granted approval (APA, 2017). The Faculty of Education's Ethics Committee at the UP provided ethical permission before the start of this research investigation.

During my study, I handled and maintained all data properly and stored it securely; the participants' confidentiality was protected throughout my study, including the data analysis process. The data will be digitally saved and securely maintained for 15 years for research purposes.

1.10 Summary of Findings

The key findings, based on the RQs posed in Section 1.3 are:

PRQ: "How can an SC intervention with teachers in primary schools in a challenged educational context inform knowledge on TR?"

Irrespective of the social connectedness intervention, TR and SC were high amongst teachers - despite the challenged context. The intentional gatherings between teachers led to a significant increase in trust. The teachers acted on a heightened awareness of social connectedness by leveraging school and school-community networks to bond across school spaces. The bonding signifies an enabling pathway to respond to needs, using social networks and resources to provide and receive social support from peers, learners, parents, and caregivers. Following the social connectedness intervention, evident enablers of quality

education included teacher professionalism (opportunities for professional development via social networks, peers and schools), teaching and learning competencies (creativity, adaptability, compassion); and enablers of occupational well-being, including social connection, acknowledgement of occupational inputs, and experiencing occupational purpose.

SRQ1: "How does SC compare pre and post intervention?"

Irrespective of an SC intervention, South African teachers working in a challenged space displayed high SC, valued building relationships and expressed the need for relatedness and belonging. *Post-intervention* quantitative results showed a statistically significant increase in participants' overall score for SC. Scales 1, 2, and 3 showed no significant difference in pre- and post-intervention results. There was a significant increase in Scale 4 (the degree to which a person trusts other people in their community). Trust was the only scale to have increased significantly between pre- and post-intervention. Participation in an SC intervention increased teachers' reported ability to trust others and enhanced competencies aligned to SC. Process data collected during May, July and September 2019 teacher-researcher meetings showed that teachers reported strengthened SC competence (Theme 1). Besides awareness of the advantages of SC (Sub-theme 1.1), teachers also mentioned other enhanced competencies aligned to SC. These competencies included the capacity for bonding within and across school social networks (Sub-theme 1.2), leveraging school-community networks (Sub-theme 1.3), and valuing positive family relationships (Sub-theme 1.4).

SRQ2: "To what extent did the SC intervention with teachers in peri-urban primary schools enable SC?"

When teachers participate in an SC intervention, their repertoire for providing and receiving both implicit and explicit social support to learners, co-workers and the school community is expanded. The SC findings indicate that a social connectedness intervention enables social connection, leveraging network capacity, and giving and providing social support. Before the intervention, there was a tendency for SC as a resource management strategy, as evidenced by high SC quantitative scores. Process and post-intervention qualitative themes indicated that an SC intervention created additional space for the teachers to develop and strengthen their relationships further. The introduction of an SC intervention not only boosted teacher connections (as shown in Sub-theme 1.2, "Teachers bonding within and across social networks"), it also promoted and prioritised SC in the lives of teachers (as shown in Sub-theme 1.4, "SC enables teachers to value positive relationships"). Furthermore, teachers reported the capacity to give social support to learners and receive social support from learners, co-workers and school-community members (as shown in Theme 2, "Providing social support as a resilience-enabling resource for teachers", and Theme 3, "Receiving social support as a resilience-enabling resource for teachers").

SRQ3: "How does TR compare pre- and post-intervention?"

There were significant differences ($p < 0.05$) in teacher professionalism, teacher emotion, teacher motivation, teacher sense of coherence, TR, and teacher efficacy, according to the WSR tests (as given in Table 4.7). Except for the teacher contextual scale, significant variations were identified between pre- and post-intervention scores on all scales.

Pre-intervention data points to teacher reports on experiences of enablers of quality education, including instances where the teachers expressed teacher professionalism and T&L strategies as enabling quality education. Process data collected revealed that Isithebe gatherings leveraged social networks for teacher PD. Teachers foregrounded learning from peers, other schools and researchers that enabled quality education.

Teacher experiences of enablers of quality education post-intervention included instances where the teachers expressed teacher professionalism, T&L strategies and leveraging social networks as enabling quality education. In addition to these pre-intervention themes occurring at post-intervention, additional themes indicated that "teacher adaptability enables quality education" (Category 1.2.2) and "showing compassion for learners enables quality education" (Category 1.2.3).

SRQ4: "To what extent did the SC intervention with teachers in peri-urban primary schools enable TR?"

The SC intervention mobilised enablers that supported TR positive outcomes that included Quality Education (positive outcomes) enabled by (enablers demonstrated in SC intervention) teacher professionalism. The outcomes also included T&L and occupational competencies (positive outcomes) enabled by (enablers demonstrated in SC intervention) acknowledgement and occupational purpose. Both QUAN+QUAL data demonstrated an increase in TR following the "Isithebe" SC Intervention. Except for the teacher contextual scale, significant variations were reported between pre- and post-intervention scores for all scales. Teacher contextual knowledge ("teacher lived knowledge of the hardship of the space in which they work"; Ebersöhn et al., 2020, p. 26) was high before the intervention.

Increases in quantitative TR scales, mirrored in qualitative themes, indicate that deliberately strengthening SC and being engaged in reciprocal social support contributed to TR and enabled teachers to deliver quality education. At post-intervention data collection, increased reported incidences of "teacher experiences of enablers of quality education in challenged educational contexts" (Theme 1), and "teacher experiences of enablers of occupational well-being in challenged educational contexts" (Theme 2) corroborated increases across quantitative TR scales.

1.11 Chapter Outline

1.11.1 Chapter 1: Introduction and Background to my study

Chapter 1 introduced my study and an understanding of the contextual background of the study. Chapter 1 outlined the methodological and theoretical underpinnings of the study and explained the key concepts. Chapter 1 sets the stage to motivate and explore how an intentional SC intervention can inform knowledge on TR in challenged contexts, which will be elaborated upon in the following chapters.

1.11.2 Chapter 2: Literature Review

Chapter 2 highlights the existing knowledge on TR and SC relevant for teachers working in a post-colonial, Global South context. The review begins by exploring literature discussing the educational landscape of South Africa as an exemplar of a Global South place to locate the current study within a challenged context. After discussing educational challenges within a post-colonial context, the literature review discusses TR from a socio-ecological perspective by exploring constraints and enablers to TR across both international and South African contexts. After that, I show SC matters for TR in challenged contexts. RRR is presented as the theoretical framework guiding my study, which views SC as a culturally-salient resilience enabling pathway used by teachers in challenged contexts in South Africa.

1.11.3 Chapter 3: Research Methodology

In Chapter 3, I substantiate my research methodology decisions. My study employs an MMR approach and follows a PRA methodology informed by participatory principles. Six primary schools in lower socio-economic areas of the EC, South Africa, were purposefully sampled, with 36 teachers participating. Rather than at breadth and scale, a non-experimental pre- and post-test intervention approach was adopted to obtain teacher data in depth. An SC intervention was co-constructed with participants and delivered over six months throughout a year, using a PRA approach. At baseline, throughout the intervention, and afterwards, QUAN+QUAL textual and visual data were collected. Qualitative data was thematically analysed using verbatim transcriptions and visual data; quantitative data was analysed using SPSS.

1.11.4 Chapter 4: Social Connectedness Research Findings

Chapter 4 provides an integrated QUAN+QUAL data analysis that describes how SC compared pre- and post-intervention (SRQ1). Following an intentional SC intervention, quantitative data revealed an increase in SC among participating teachers. In a time of hardship and distress, SC provides a readily available protective resource on which teachers can draw to cushion against chronic challenges and enhance occupational well-being plausibly. Qualitative SC findings indicate enhanced SC competencies such as a capacity for

bonding within and across school social networks, leveraging school-community networks, and valuing positive family relationships. Enhanced SC competencies are plausibly reflected in quantitative increases in teachers' reported ability to trust others. Chapter 4 answers SRQ2: "To what extent did the SC intervention with teachers in peri-urban primary schools enable SC?"

1.11.5 Chapter 5: TR Research Findings

Chapter 5 will provide an integrated QUAN+QUAL data analysis that will describe how *TR* compared pre- and post-intervention (SQR3). Quantitative data following an SC intervention showed an increase in TR of participating teachers. The qualitative data shows that South African peri-urban primary school teachers in a challenged educational context used SC as a pathway to TR, and that SC competence can be developed to support TR. Chapter 5 answers SRQ4: "To what extent did the SC intervention with teachers in peri-urban primary schools enable TR?"

1.11.6 Chapter 6: Conclusions and Recommendations

Chapter 6 endeavours to address the PRQ: "How can an SC intervention with teachers in primary schools in a challenged educational context inform knowledge on TR?" Chapter 6 provides theoretical explanations of the results obtained and discusses the study's limitations and contributions to existing literature. Recommendations for further research are discussed.

1.12 Conclusion

Chapter 1 served as an introduction to my research and a discussion of my study's contextual background. It outlined the study's purpose and RQs and provided clarification of key concepts. The chapter discussed the research paradigms, methodology, theoretical background and ethical considerations relevant to the study. Chapter 1 also suggested this study's potential value for knowledge generation on how SC enables TR, specifically in challenged contexts.

2 Chapter Two: Literature Review

2.1 Introduction

The literature review highlights existing knowledge on TR and SC relevant for teachers working in a post-colonial, Global South context. SC is viewed as a protective resource that can be mobilised as a pathway to support TR from a TR perspective. Studies on TR have mainly come from the Global North, with limited investigations of TR in the Southern Hemisphere. Exploring the impact of an SC intervention with peri-urban primary school teachers in South Africa may inform gaps in TR knowledge in challenged contexts.

In Section 2.2, I introduce the educational landscape of the Global South countries by discussing the impact of globalisation, worldwide trends in educational challenges in Global South countries, and an exploration of South Africa as an exemplar of a Global South place to locate the current study within a challenged context. The Global South context provides a larger place where a challenged education space is embedded. A challenged educational space such as South Africa requires teachers who resile and thrive in the profession despite chronic and cumulative challenges. A theoretical assumption of this study is that SC may be one resilience-enabling pathway that supports better-than-expected TR outcomes given post-colonial educational challenges.

In Section 2.3, I present a discussion on TR from a socio-ecological perspective. Section 2.4 explores trends in international constraints and enablers to TR, and Section 2.5 discusses trends in constraints and enablers to TR in challenged contexts. Even though there has been considerable research on TR in the previous decade, conceptual work on resilience in teachers from a socio-ecological perspective is still in its infancy, especially in places with severe social disadvantage and structural disparity, such as South Africa.

In the absence of systemic structural support in postcolonial Global South contexts, indigenous communities adapted by sharing social resources and cultivating a culture of care and kinship. Therefore, a premise of my study is that SC may support TR in challenged, South African educational contexts as it resonates with Afrocentric, “Ubuntu” values, beliefs and practices. Section 2.5 defines SC and related concepts and explores how international knowledge of SC matters for TR, especially in challenged contexts. I conclude the chapter by proposing a conceptual framework that argues for SC from a socio-ecological perspective as a pathway to TR in a challenged educational context.

2.2 The Educational Landscape of Global South Countries

2.2.1 Introduction

Teaching is regarded as one of the most stressful occupations in the world. However, for teachers in the Global South who are dealing with significant and ongoing adversity, being cut

off from support adds to the already heavy load on their shoulders, increasing the risk of burnout, attrition, and lower-quality education. Section 2.2.2 discusses the impact of globalisation and post-colonialism on the educational landscape of Global South countries. Section 2.2.3 discusses worldwide trends in educational challenges in the Global South space, and Section 2.2.4 discusses the educational landscape of South Africa as an exemplar of a Global South place to locate the current study within a challenged context.

2.2.2 Impact of Globalisation on the Educational Landscape of Global South Countries

"The phrase 'Global South' refers broadly to the regions of Latin America, Asia, Africa, and Oceania" (Dados & Connell, 2012, p. 12). Dados and Connell (2012) see "Global South" as "one of a family of terms, including 'Third World' and 'Periphery" (Dados & Connell, 2012 p. 12), which indicate regions that are mostly low-income and often politically and economically marginalised. "There is a wide gap in development between the Global North and Global South economies, while the Global North economies are sustained; the Global South economies are struggling to find their feet" (Odeh, 2010, p. 347). The Global South countries are not as advanced as their northern counterparts and rank low in global economic competitiveness. The Global South countries are more likely to experience extreme hardship through political instability, poverty and unemployment, inadequate healthcare, gender inequality, poor education, and a lack of basic infrastructure (Odeh, 2010; Schwab, 2018).

"There is an unequal strength between the Global North and the Global South … the unequal strength between the two is manifested not only in the dominant power of the Global North to control the pattern of international trade and agreement regulating it but also in their ability often to dictate the terms whereby technology, foreign aid, and private capital are transferred to Global South" (Odeh, 2010, p. 343). Therefore, "the Global South is dependent on and vulnerable to the Global North" (Odeh, 2010, p. 343), creating low standards of living and growing income inequality (Schwab, 2018). Furthermore, education has become a mechanism through which global forces influence postcolonial countries and their citizens (Tikly & Bond, 2013). Native knowledge systems have been uprooted, disrupted and silenced in colonial education, which extends to postcolonial education that still favours English as the language of instruction (Ebersöhn, 2019; Tikly & Bond, 2013). Globalisation proliferates the suppression of indigenous knowledge systems and perpetuates unequal resource distribution in postcolonial countries (Montiel, 2018). Furthermore, challenged educational spaces found in Global South countries result in "fewer opportunities due to resource constraints, with few services and avenues available to develop human and social capital" (Ebersöhn et al., 2020, p. 2).

Postcolonialism is a word that refers to a long process of disentanglement that has left certain countries still entangled in the colonial legacy (Tikly & Bond, 2013). As a result, these colonial powers constructed and dominated a global economic system, resulting in an unequal economic, cultural, and social power hierarchy (Young, 2016). Globalisation and post-colonialism have resulted in inherent challenges in Global South countries, which significantly influence these countries' educational landscapes (Mansfield et al., 2018). A postcolonial view of education essentially focuses on the continued influence of European colonial history on present education systems, especially concerning issues of race, culture, and language (Majhanovich, 2016; Tikly, 2001). Education systems had to change and adapt to global forces, having far-reaching consequences for schools and teachers, as discussed in Sections 2.2.3 and 2.2.4.

2.2.3 Worldwide Trends in Educational Challenges in Global South Spaces

The Global South emerged as a concept denoting “pockets of poverty” and inequality worldwide, while the Global North represents contexts of privilege (Trefzer et al., 2014). Global South countries share a history of colonialism, which resulted in oppression, marginalisation, and “inequalities in living standards and access to resources” (Dados & Connell, 2012, p. 13). “Education systems are heavily influenced by political, social and economic factors” (Mansfield et al., 2018, p. 54). Therefore, the effects of globalisation on education are extensive, owing to the importance of education (Majhanovich, 2016).

There are many ways to conceptualise poverty. It can be conceptualised strictly in economic terms, i.e. a lack of income. Otherwise, it can be conceptualised as social exclusion and involves a broad range of personal, cultural, political, social, and economic factors (Brown, 2005; Loewen, 2009; Samuel et al., 2014). Poor people define their poverty across various dimensions, including lack of education, health, housing, personal security, empowerment, and employment (Samuel et al., 2014). In this sense, poverty reduction involves allowing equitable access to basic education and health services and the ability to earn income (Carr et al., 2014). The interactions of these dimensions – and the human responses to them – contribute to situated learning and identity formation. The link between social exclusion and identity formation with poverty in developing countries has important implications for educational research. Poor people are the victims of their social, structural, and economic environments, negatively impacting individual learning (Day et al., 2011; Majhanovich, 2016). In contexts where survival is the main concern, poor people neglect the long-term benefits of acquiring numeracy and literacy skills, as they are still grappling with the most basic needs for their survival (Majhanovich, 2016).

The prioritisation of education in countries is an outcome of its importance for national economic survival in a highly competitive global climate (Majhanovich, 2016). “Investing in education can promote economic growth, increasing productivity and reducing social inequality” (Mansfield et al., 2018, p. 54). Effective teachers and schools can potentially change social, cultural and political landscapes by improving the worlds of their learners. However, schools in developing countries have severe problems with providing a full range of qualified teachers and sufficient resources to ensure the learners’ academic success (Oke et al., 2016). Many teachers in these challenged educational contexts lack basic levels of content knowledge skills. “Inadequate teacher content knowledge in poor schools perpetuates a cycle of poor educational outcomes for learners, further entrenching their poverty and weak labour-market status” (Van der Berg et al., 2016, p. 45).

“Commitment to provide Universal Primary Education (UPE) is a goal pursued by nations worldwide, and even more-so in developing nations, as provision of primary basic education is positively correlated to economic growth and future opportunities for citizens’ individual growth” (Muyaka, 2018, p. 430). The teaching profession is characterised by several demands and challenges that either motivate teachers to resile or cause them to suffer stress and burnout. They may even leave the profession (Boakye & Ampiah, 2017). Furthermore, a scarcity of resources and financial incentives to entice qualified and dedicated teachers to the profession interferes with providing quality education (Carver-Thomas & Darling-Hammond, 2019; Gu, 2014).

Teacher attrition is a prevalent issue worldwide, with many teachers leaving their posts in a specific school or leaving the profession entirely after only a few years due to the demands of the occupation (Oke et al., 2016). In affluent countries like the United States, Australia and many European countries, teacher shortages are particularly acute in core subject areas like mathematics, modern foreign languages, and science (Gu, 2014). However, “in many developing countries, for example, where school enrolment is on the rise, an acute shortage of primary teachers represents one of the greatest hurdles to providing education for all school-age children” (Gu, 2014, p. 5). For teachers in economically-constrained education contexts, these challenges are compounded by a lack of resources, inadequate structural supports, over-populated classes and ineffective management (Oke et al., 2016).

The adversities teachers face may negatively impact already disadvantaged learners (Darling-Hammond, 2019). As learners in challenged contexts are already experiencing adverse contexts, TR has far-reaching implications, and where it fails, it may negatively influence the learners’ academic performance (Day et al., 2011). As a result of the demanding nature of the profession, even more so in challenged contexts, teachers require resilience to deliver their best work over time, and it is therefore of paramount importance to investigate resilience in this context (Gu & Day, 2013; Mansfield et al., 2016).

Education has become the vehicle for driving the globalisation of English and other Global North languages (Tikly, 2001). The indigenous knowledge production of the Global South has been mostly marginalised in favour of their Global North counterparts (Ebersöhn, 2019; Saavedra & Pérez, 2018). Therefore it is essential to establish evidence- and context-based best practice protocols for education agendas in Global South spaces (Carr et al., 2013; Tikly, 2001).

2.2.4 Education Landscape of South Africa: An Exemplar of a Challenged Post-Colonial Space

The Global North and Global South divide does not necessarily signify literal geographic separation as these regions are sometimes interwoven and even at times found within one another (Trefzer et al., 2014). Although South Africa (situated in the Global South) is currently regarded as a UMIC (an economy with a "Gross National Income per capita between $4,096 and $12,695") (World Bank, 2022, para. 2), it is considered one of the most unequal countries in the world (World Bank, 2018). As an emerging economy, South Africa's educational context differs from those found in developed regions like America and Europe but is similar to countries from the Global South. Getting a basic education is difficult in many rural areas in South Africa because of poverty. Such inadequate educational possibilities hinder families' ability to eradicate poverty and perpetuate the poverty cycle across generations (Mohangi et al., 2016).

Post-colonial South Africa faces many challenges, with the educational landscape facing numerous obstacles for teachers to deliver quality education. These obstacles include lower literacy rates, discipline problems, shortages of digital technology (StatsSA, 2017a), infrastructure, frequent power shortages, transportation to and from school, poor sanitation (Ebersöhn 2012), and high rates of teacher absenteeism (Msosa, 2020). South African teachers face chronic and cumulative stressors that result from a unique socio-political context (Ebersöhn, 2018). Post-colonialism has had devastating consequences for the African education system. After the abolition of apartheid, new laws in 1994 and the start of a democratic South African government, there have been numerous transformation challenges, especially in education - transformation priorities have been access, redress and equity. (OECD, 2022). Even after access to education was made a transformation policy, organisational changes (such as national and governmental policy change, facilities and infrastructure, and health and support services) were not sufficient in meeting the huge demand required for transformative change. This has resulted in unequal access to education and other resources for marginalised groups (Pillay, 2003; Taylor & Von Fintel, 2016). Constraints and enablers vary in degree and scale, so in an unequal and transformative ecology, constraints are experienced by those with limited resources due to an inequitable

distribution of available sources. Consequently, variability exists regarding resource availability on the scale of individual, families, schools, institutions, communities, and society (Ebersöhn, 2017).

Colonial legacies continue to wield significant influence over the lives of those affected. Apartheid left behind decades of political instability, structural disparity, poverty, and growing complex relationships with imperial powers through funded projects and structural adjustment programmes (Chisholm & Leyendecker, 2008; McLeod, 2010). Educational spaces in South Africa should emphasise enabling spaces for well-being pathways suitable for a post-colonial Global South space (Ebersöhn, 2016). The legacy of colonialism often results in the neglect of indigenous knowledge belief systems in postcolonial countries, favouring Euro-Western and Global North knowledge (McLeod, 2010).

The process of addressing past inequalities created by colonialism and Apartheid is complex and ongoing. Reconciliation involves the reparation of all kinds of deprivations. The government is faced with addressing structural inequalities caused by Apartheid on a practical level and considering an extremely diverse population's educational, linguistic, financial, and cultural differences (Chisholm & Leyendecker, 2008). As a result of the dominance of English and the standard of postcolonial education (despite English not being the first language of teachers and learners in South Africa), low literacy rates are reported in many postcolonial countries (United Nations Development Programme [UNDP], 2018). The intrinsic importance of local languages and cultures is now being recognised worldwide for educational reasons, as the mother tongue plays a critical role in children's ability to access and generate knowledge (Ball & Mcivor, 2013; Ferguson, 2013).

The constitutional foundations for a system that successfully accommodates a diverse population are in place. However, the practical implementation of such a constitution is still far from being actualised and will take decades to come to fruition (Mlachila & Moeletsi, 2019). Despite the DBE’s efforts in fulfilling this fundamental right to education, learners continue to confront difficulties, such as dropping out of school and having poor academic performance and success. These issues draw one's attention to the quality of education offered in schools and the lingering effects of post-colonial disparity (Marishane, 2016). Studies show that multiple South African schools may not have adequate resources to mitigate challenges to T&L, and teachers seem ill-equipped to provide quality education (Bryan, 2005; Milner & Khoza, 2008; OECD, 2019).

The reasons behind South Africa's poor educational outcomes are diverse and multifaceted. South Africa spends 20% of its budget on education, and insufficient finance is not the primary explanation for poor educational outcomes (Mlachila & Moeletsi, 2019). The legacy of colonialism plays an insidious and powerful role in the ability of the education system to deliver quality education (Mlachila & Moeletsi, 2019). The poorest 75-80% of South African

households depend on failed public schooling and are fated to show poor educational outcomes. The wealthiest 20-25% of South African households who have access to private schooling achieve better educational outcomes. As poverty and unemployment are distributed according to levels of education and class, “the bimodality of South Africa’s education system is perpetuating economic inequality through employment and earnings channels” (Mlachila & Moeletsi, 2019, p. 6).

The South African Constitution promises the right to basic education (Marishane, 2016). “According to the South African educational policy, schooling is compulsory between the ages of 7 and 15 years or up to the completion of Grade 9” (Gilimani et al., 2016, p. 191). The DBE created and implemented regulations to ensure that learning takes place in a safe and secure setting, that learners will have adequate T&L support material, health and nutritional services, and are excused from paying school fees if their parents are impoverished (Marishane, 2016). Research reveals “that there has been huge progress in the implementation of these initiatives, particularly in primary schools with enrolment figures showing a reduction of race disparity in South Africa” (Leask, 2019, p. 33). The no-fees program has helped over 70% of primary and secondary school learners who depend on a daily meal supplied by the schools (StatsSA, 2015). Yet, despite these developments, the achievement discrepancies in mathematics and literacy between fee-paying and non-fee-paying schools imply that learners from underprivileged backgrounds continue to perform at a lower level than their more fortunate counterparts (Reddy et al., 2020).

In the context of a post-colonial nation like South Africa, “education systems are heavily influenced by political, social and economic factors” (Mansfield et al., 2018, p. 54). Education needs to provide a continuous flow of the necessary skills, knowledge, and attitudes to develop the economy (Majhanovich, 2016). The exploration of current education reform efforts in South Africa highlights the disjuncture between policy intention and practice and the impact on education quality (Tikly & Barrett, 2013). The no-fees policy, which was implemented to assist financially disadvantaged learners in gaining entry to schools, has resulted in significant disparities between schools that charge a fee and schools that provide free tuition. Non-fee-charging schools have substantially higher teacher-to-learner ratios, which has resulted in an influx of second-language learners (Sayed & Ahmed, 2013). Teachers at these schools are overworked due to many learners, limited resources, and a lack of abilities to provide a high-quality education. “Schools in poor communities face environmental challenges such as low accountability and poor management that overshadow the impact of teacher knowledge” (Mlachila & Moeletsi, 2019, p. 38).

In South African schools, the health risk linked with HIV/AIDS is a distinct and serious reality that has disastrous effects on academic performance and learning. Teachers are frequently forced to assume alternative roles as medical caregivers and take on more

responsibilities due to these issues (Mansfield et al., 2018). Ideally, responses to social needs at a community level “should be visible across an array of social sectors. Thus, too, the education sector is expected to fulfil a leading role” (Ferreira et al., 2010, p. 101).

Limited professional prospects and low salaries have also been linked to high levels of absenteeism of teachers in developing countries due to the need to partake in informal entrepreneurial activities to supplement their insufficient salaries (Mansfield & Beltman, 2019). Schools with limited resources, limited community support and parental involvement, low PD possibilities, large class numbers, and poor learner discipline are all aspects that contribute to teacher attrition in South Africa (Carver-Thomas & Darling-Hammond, 2019; Castro et al., 2010; Ramos & Hughes, 2020). Effective T&L has to occur amidst limited resources, infrastructure, and teacher aids in South African schools. “Teachers, learners and families have to overcome everyday burdens of limited transport, lack of electricity and water, and scarce services, to access available educational resources” (Ebersöhn, 2017, p. 1).

Progress in South Africa, given an Apartheid legacy, has included improved access to school materials, better nutrition, improved household incomes, and redistributive transfers in the form of government grants (Soudien et al., 2021; Zizzamia et al., 2019). South Africa, like Brazil, Mexico, Turkey, and Malaysia, is a UMIC with access to resources and infrastructure that poorer countries do not have. However, because of significant racial and social divisions, most of South Africa's population is poor and unequal, with 55.5% unable to meet their basic necessities in 2015 (StatsSA, 2017b; Zizzamia et al., 2019). Schools in South Africa fall into a two-tiered system characteristic of the wider society, with 75% of learners comprising of mainly poor and black learners from disadvantaged backgrounds in no-fee-paying schools and 25%, comprising mainly white middle-class learners in fee-paying privileged schools (Spaull, 2013; Zizzamia et al., 2019).

The COVID-19 pandemic has exacerbated the already fragile and unequal South African education system. The negative impacts of the COVID-19 pandemic included the widening of pre-existing education inequalities and learning losses because of school closures (Soudien et al., 2021). On the 15th of March 2020, the South African president declared COVID-19 a national disaster and implemented a Level 5 lockdown for 35 days where only essential services and businesses were allowed to operate. There were two choices for continuing learning activities during the Level 5 lockdown in March 2020: Schools only had the choices of self-study with parental and family support or online tuition during the hard lockdown after March 2020. learning. Even for learners from affluent families and schools, the transfer was difficult for both parents and teachers. These online hurdles were considerably more onerous for children from low-income families who did not have access to a desk, a quiet workspace, internet connection, computers, or parents who could home school their children (Soudien et al., 2021). According to the 2018 General Household Survey, only 22% of learners

had access to a computer at home, and only 10% had some type of internet access (StatsSA, 2019). Although it is still too early to identify the full impact of the COVID-19 pandemic on the South African school system, early indications suggest that those who are vulnerable and have less access to resources have suffered disproportionately (Soudien et al., 2021).

Teachers working in the South African context face extreme challenges due to poor service delivery and extreme poverty (Darling-Hammond, 2007; Ebersöhn, 2017; Mampane & Bouwer, 2006). Poverty-related obstacles in education include: a lack of books and T&L material; large classrooms with too many learners, poor facilities, low pass rates, lack of teachers, poor quality teachers (Ebersöhn, 2014; Milner & Khoza, 2008), limited PD, health challenges, threatened the livelihood of learners and their families, inadequate school structure, and health challenges (Ebersöhn & Loots, 2016; Levine, 2014). Less equal societies mean fewer opportunities for equality to exist and the constant presence of immense adversities (Bennell et al., 2002; Ebersöhn, 2017; Mampane & Bouwer, 2006); thus, the need for TR becomes important.

2.3 International Trends on Constraints and Enablers for TR

2.3.1 Introduction

Resilience has been researched in various educational contexts worldwide, including Australia, the United Kingdom (UK) and the United States of America (USA). While each environment has its own social, cultural, and economic aspects, common educational challenges exist in both developed and developing countries. Socio-ecological resilience theory explores how adversity and risk in one system co-exist and mobilise protective resources in aligned systems. From this perspective, discussions on TR need to include the socio-ecological risk factors (constraints) and protective resources (enablers) involved in processes relating to resilience. The social-ecological perspective is useful as it defines resilience as the quality of individuals and their environments, thus enabling a nuanced understanding of TR within the context it is being studied (Gu, 2018; Ungar et al., 2013). Section 2.3.2 discusses international *constraints to TR* across personal, micro-, meso-, exo- and macrosystems, and Section 2.3.3 discuss international *enablers* to TR across personal, micro-, meso-, exo- and macrosystems.[12] Table 2.1 summarises international constraints and enablers to TR across systems.

[12] "Ecological contexts are made from varying degrees of proximity to the teacher, including the microsystem (the teacher's immediate environment), the mesosystem (interactions between microsystems), macrosystem (underlying mainstream societal beliefs and values), and exosystem (neighborhood and community settings in which teacher lives). These levels of the environment interact and transact with each other over time in influencing development and adaptation" (Ebersöhn et al., 2020, p. 4).

Table 2.1

Summary of International Constraints and Enablers for TR Across Systems

Microsystem (Personal risks and resources)	
Constraints	Enablers
-	Social and emotional competence
Difficulty in seeking assistance	Motivation and efficacy
Low levels of efficacy or confidence	Optimism
Negative emotions – fear, anger, frustration and depression	Self-care
Overwhelmed by multiple demands, roles and responsibilities	Having a feeling of vocation and moral purpose
(Day, 2008; Hong, 2012; Pretsch et al., 2012).	Effective problem-solving skills
	Committed to life-long learning
	Having intrinsic value for working as a teacher
	(Gu, 2014; Hong, 2012; Le Cornu, 2013; Morgan, 2011; Pretsch et al., 2012)
Mesosystem (School leaders', parents', learners', co-workers', and support networks' relationships)	
Constraints	Enablers
Poor classroom management	Supportive personal and school contexts
Unsupportive leadership staff	Strong relationships with learners and co-workers
Lack of community support	Positive feedback from parents and pupils
Limited parental involvement	PD that enables good T&L practices
Poor PD prospects	(Gu, 2014; Hong, 2012; Le Cornu 2013; Morgan, 2011)
(Brunetti, 2006; Castro et al., 2010; Day, 2008).	
Exo- and macrosystem (Physical infrastructure, location, resources)	
Constraints	Enablers
Policy changes and continuous changing education system	Effective leadership by school principals to "mediate the negative influences of macro-level policy contexts" (Gu, 2018, p. 17)

Heavy workload and lack of time and resources (Mansfield et al., 2018).	Enabling policies and health and welfare resources (e.g. social grants for parents or caregivers) (Gu, 2018).

Adapted from Mansfield et al. (2018)

2.3.2 International Constraints to TR

The teaching profession is one known to lead teachers to suffer immense stress, sometimes to the point of burnout, even in well-resourced environments (Ramos & Hughes, 2020). As teaching is a demanding job, it is not easy for teachers to maintain good quality teaching and remain committed to the profession over an extended period (Gu & Li, 2013). Besides class time, teachers are responsible for various administrative tasks, extra-curricular activities, discipline and classroom management, academic learner support and parental communication (Gonzalez et al., 2008). Teachers also play an important pastoral role in the emotional well-being of their learners. They, therefore, have the responsibility of identifying learning and emotional difficulties that emerge in the classroom and referring learners to the relevant professionals if necessary (Evans, 2017).

The increasingly complex demands under such difficult conditions may have negative consequences on teachers' health and well-being and the quality of their teaching (Wosnitza et al., 2018). This issue results in a worrying number of teachers suffering from stress and burnout, with many early-career teachers leaving the profession during the first five years (Wosnitza et al., 2018). Teacher attrition is thus a prevalent issue worldwide, with many teachers leaving their posts in a specific school or leaving the profession entirely after only a few years due to the demands of the occupation. Issues of bureaucracy, unemployment and economic stress amongst teachers and endless educational reforms ("such as external evaluations for teachers, schools and students) are amongst the external factors that account for teachers' lack of motivation and dissatisfaction" (Flores, 2018, p. 180). Teachers who prevail need to use adaptive coping strategies to manage everyday challenges and maintain a commitment to their profession despite adversity in the teaching context (Brunetti, 2006; Gu & Day, 2013; Wosnitza et al., 2018).

Constraints across teachers' personal systems include difficulty in seeking assistance, low levels of efficacy and confidence (Day, 2008), being overwhelmed by multiple demands, roles and responsibilities (Hong, 2012), and negative emotions teachers undergo, such as fear, anger, frustration and depression (Pretsch et al., 2012). Austin et al. (2005) already found that teachers with high-stress levels are more likely to use avoidance and distancing strategies associated with emotional exhaustion, lack of accomplishment, depersonalisation and withdrawal from stressful situations. These avoidant coping strategies perpetuate a vicious cycle of negative distress (Sharplin et al., 2011).

Constraints across teachers' micro- and mesosystems include poor classroom management, meeting the needs of disadvantaged learners and lack of resources (Brunetti, 2006; Castro et al., 2010); lack of community support, limited parental involvement, poor PD prospects (Castro et al., 2010), and unsupportive leadership staff (Day, 2008). Constraints across teacher macro- and exosystems include educational policies that impact TR, including risk factors such as heavy workloads and lack of resources (Mansfield et al., 2018).

2.3.3 International Enablers to TR

Despite various pressures on teachers, "research also consistently shows that many teachers across the world have managed to maintain their passion and commitment to help children learn" (Day & Gu,2010, p. 3). Therefore, it is necessary to investigate why teachers remain committed and explore the factors that enable them to stay in the profession (Mansfield et al., 2012). Research on similar teacher well-being experiences around the world found seven similar principles that underscore teacher well-being that include: "1. experience being valued and respected as leaders; 2. deeply engaged in their work; 3. find meaning and purpose in their work; 4. feel successful; 5. have their personal, non-work needs met; 6. manage their emotions and well-being; and 7. experience a positive, supportive work environment" (Proeschold-Bell et al., 2021, p. 9).

PD that enables professional identity and improves teaching practices has been a persistent issue in many school districts worldwide (Flint et al., 2019; Gruenewald, 2003). Recent studies have identified critical components of effective PD, including "inquiry, reflection, and choice" (Flint et al., 2019, p. 717). Although there is a significant amount of research on effective PD models, in reality, most districts define the scope of PD with little or no involvement from teachers. Therefore, PD that "highlights imaginative ideas, allows flexibility, and emphasizes critical ideologies can leave a lasting and ongoing impact" (Flint et al., 2011, p. 735).

Individual behaviour evolves in connection with the environment due to an interplay between experience, skills, knowledge, and beliefs (e.g. efficacy). Therefore, teachers join the field with specific beliefs (e.g., efficacy), capacities, capabilities and a repertoire of strategies to help them cope with stressful or challenged conditions they may encounter when they adjust to a new environment (Peixoto et al., 2018). Other authors have highlighted resilience resulting from combining elements like commitment, enjoyment, excitement, and passion (Day & Gu, 2014). On a human level, TR is "role specific in that it is closely associated with the strength and conviction of teachers' vocational commitment" (Gu, 2018, p. 17). Teachers possess the desire, strength, and optimism to assist all the children in learning, growing, and accomplishing. According to research on TR, they attempt to make a difference in their classroom on every average school day (Day & Gu, 2014). One would expect that contributing

to society is substantially more important to education majors than non-education majors. The factors of income, job stability, prestige, and advancement prospects were more important to non-education majors. Intrinsic rewards such as the chance to interact with children, the belief that their capabilities were well suited to teaching, the belief that teaching contributed to the betterment of society, and the ability to be creative outweighed money and prestige considerations (King et al., 2016).

Having a sense of moral meaning and vocation, motivation and efficacy, optimism, and social and emotional skills, courage, effective problem-solving skills, commitment to lifelong learning, and having intrinsic value for working as a teacher are all enablers of resilience across teachers' personal systems (Gu, 2014; Hong 2012; Le Cornu 2013; Morgan 2011; Pretsch et al., 2012). New difficulties, challenges, and possibilities emerge with shifting circumstances at different points in one's life, resulting in the "development of resilience in the face of adversity" (Gu, 2018, p. 23). Some components were more profession-related, such as being reflective, flexible, adaptable, motivational, social, and emotional (Collie & Martin, 2016; Papatraianou et al., 2018; Peixoto et al., 2018). Social-ecologically speaking, resilience processes are entrenched in a variety of circumstances in their daily professional life, many of which are fundamentally uncertain and unpredictable (Mansfield et al., 2012). Because of this uncertainty, teachers need to be adaptable and open to learning new skills and methods.

Teaching is an emotionally draining profession, as teachers have to cope with learner misbehaviour, which evokes negative emotions of fear, anger and frustration. This is an example where resilience, as a dispositional predisposition to experience happy emotions, could counterbalance the negative emotional experiences typical in teaching (Pretsch et al., 2012). Teacher emotion "includes aspects essential to resilience, including humour, enjoyment as well as emotional regulation" (Ebersöhn et al., 2020, p. 9). Taking care of teachers' emotional well-being is important for building resilience (Day & Gu, 2007). Teachers experience a spectrum of emotions, from positive to negative (e.g., from joy to despair). These emotions influence and are influenced by T&L and interactions between learners, teachers, co-workers, and school administrators (Cross & Hong, 2012). The extent to which teachers subjectively experience pleasant moods such as joy, interest, fulfilment, and accomplishment is referred to as positive affect. There is evidence in the literature that there is a strong correlation between an individual's psychological and emotional stability and physical well-being (Day, 2014). This evidence suggests that mindfulness related to one's emotional health should be emphasised more within the context of teachers' overall resilience (Mansfield et al., 2012).

Teachers working with children from disadvantaged backgrounds "often see their teaching practice as acts of caring and compassion as they believe these kinds of children need more attention and support" (Cross & Hong, 2012, p. 965). Therefore, these teachers

"identified themselves as academic caregivers, in a sense, providing the students with what they perceived society and history had taken from them" (Cross & Hong, 2012, p. 965). Understanding the impact of numerous macro-level elements on learners' lives, teachers become more sympathetic to learners' and parents' plights, which has been shown to alleviate negative feelings (Cross & Hong, 2012). Teachers' ability to empathise with disadvantaged learners can assist them in refocusing their interpretative lens, resulting in various emotional reactions (Markus & Kitayama, 1994).

Enablers across teacher micro- and mesosystems include supportive personal and school contexts such as solid relationships with learners and co-workers, and positive feedback from parents and learners (Gu, 2014; Le Cornu, 2013). "Teachers can cope with negative experiences" (Mansfield et al., 2018, p. 57) in the mesosystem as long as they have positive experiences, such as solid relationships with learners and co-workers (Morgan et al., 2010). Teachers' motivation and resilience are positively influenced by "in-school management support for their learning and development, leadership trust, and positive feedback from parents and pupils are key positive influences on teachers' motivation and resilience" (Gu, 2018, p. 17).

Effective leadership by school principals to "mediate the negative influences of macro-level policy contexts" (Gu, 2018, p. 17) are enablers across teachers' macro- and exosystems (Gu, 2018). Effective school management is critical for developing, growing, and widening intellectual and social capital both inside and outside the school gates. Sympathetic and caring communities require effective leadership to emerge (Gu, 2018).

Teacher sense of coherence investigates teachers' coping strategies to evaluate and cope with challenged situations (Peixoto et al., 2018). The initial wave of resilience research focused on internal resources or resilient abilities (Richardson, 2002). People respond differently to stress and misfortune because of different internal and external resources to resile and cope with adversity. Optimism has been connected to resilience as an internal trait because an optimistic person expects a positive outcome, which is also linked to employing adaptive coping techniques (Carver et al., 2010). To manage challenges and maximise adaptive, resilient outcomes, Mansfield et al. (2016) identified additional coping strategies such as "problem solving, time management, maintaining a work-life balance … (e.g. commitment, job satisfaction, well-being and engagement)" (p. 80).

"Coping strategies have been classified as direct-action strategies focused on stress source elimination by modifying internal emotional reactions" (Austin et al., 2005, p. 139). Positive coping strategies have been linked to support seeking, good problem-solving, and positive appraisal (Sharplin et al., 2011). In addition, meditation, physical activity, relaxation, and recreational activities were linked to lower burnout rates (Austin et al., 2005). Direct-action coping strategies are based on obtaining information, utilising PD, reaching out for assistance

and connecting with others by utilising the available networks and setting and developing goals (Sharplin et al., 2011). Therefore, protective structures in the workplace that encourage receiving help from peers and having access to PD are important for TR (Mansfield et al., 2016).

Self-efficacy is a teacher's ability to "bounce back when encountering challenges, and a set of strategies employed to adapt to difficult situations" (Ebersöhn et al., 2020, p. 9). Self-efficacy is an individual's personal belief and appraisal of competence to manage, perform or employ necessary actions. Teacher efficacy "assesses teacher beliefs regarding their own behaviour and ability in the teaching profession" (Ebersöhn et al., 2020, p. 9). Therefore, "teacher efficacy" pertains to the confidence beliefs teachers display, for example, in their teaching competence and behaviour management.

As a multidimensional construct, teacher efficacy is a growing body of knowledge about teachers' competencies in an educational context and is highlighted as an important protective factor for the teacher's well-being and professional practices (Morgan, 2011; Peixoto et al., 2018). Higher levels of teacher self-efficacy positively affect teachers' resilience, persistence and retention (Lee, 2018). Hong (2012) indicated that self-efficacy was an important factor regarding resilience and teachers' ability to remain committed to the profession. Research on the association between efficacy and resilience has found self-efficacy an important dimension of resilience. However, the literature on the association between resilience and efficacy within a challenged educational context is limited (Cassidy, 2015; Morgan, 2011).

TR "is determined by the interaction between the teachers' internal assets (self-efficacy) and the external environments in which the teacher lives and works (efficacy in classroom management)" (Gu & Day, 2007, p. 1314). A teacher's self-efficacy is inextricably linked to their development as competent teachers. As individuals achieve accomplishments at work, their efficacy grows, which leads to increased perseverance. (Cassidy, 2015). "Efficacy beliefs related to resilience are linked to building important relationships through connecting with students, building on their experiences and knowledge, and understanding the issues they confront" (Sosa & Gomez, 2012, p. 876). Teacher efficacy is an important enabling factor for teacher well-being and professional practices. Although teacher efficacy is a global research focus, the impact of SC on teacher efficacy, especially in a challenged context, is far less documented.

2.4 TR Constraints and Enablers in Challenged Spaces

2.4.1 Introduction

Although worldwide teaching is rated as one of the most demanding professions, teachers in a Global South context have additional challenges to overcome working in a chronically high-

risk ecology. Various teacher personal resources (optimism, tenacity, and motivation), and adaptive coping mechanisms (relational support, problem-solving), are consistent across situations (Mansfield et al., 2018). More disparities in context observed at the macrosystem level have substantial consequences for TR in challenged educational contexts. TR shows systemic pathways that allow outcomes that exceed expectations for teachers despite ongoing misfortune. "The complexity and demand of the teaching profession, as well as the consequences thereof, are well-documented" (Ebersöhn et al., 2020, p. 4). What needs further attention is the associated need to build a collective body of knowledge on TR in a post-colonial educational context that aims to enable positive educational and well-being outcomes and counter structural disparity and inequality. Section 2.4.2 discusses constraints to TR, and Section 2.4.3 explores resilience-enabling pathways for teachers in challenged educational contexts. Table 2.2 summarises TR constraints and enablers in challenged spaces across systems.

Table 2.2

Summary of TR Constraints and Enablers in Challenged Spaces Across Systems Table

TR constraints and enablers in challenged spaces	
Microsystem (Personal risks and resources)	
Constraints	Enablers
Burnout, stress and/or depression Family pressure Overwhelmed by multiple demands, roles and responsibilities Lack of confidence or efficacy Poor PD prospects (Ebersöhn, 2014; Mansfield et al., 2018).	Self-care Having "sense of moral purpose and commitment" (Gu, 2014, p. 4) Effective problem-solving skills Committed to life-long learning Having intrinsic value for working as a teacher (Coetzee, 2013; Ebersöhn, 2019).
Mesosystem (School leaders', parents', learners', co-workers', and support networks' relationships)	
Constraints	Enablers
Limited parental involvement Unable to meet the needs of disadvantaged learners Large class sizes Poor discipline of learners Ineffective classroom management Unsupportive leadership staff	Effective leadership by school principals to "mediate the negative influences of macro-level policy contexts" (Gu, 2018, p. 17) Relationships function as a collective power to meaningfully support at-risk communities. Improved teacher training and material preparation

Lack of resources (Ebersöhn, 2017; Lavoie & Benson, 2011; Rahim & Chun, 2017).	Focus on developing emotional skills in the primary school classroom (Ebersöhn, 2019; Gakure et al., 2013; Lavoie & Benson, 2011; Rahim & Chun, 2017).
Exo- and macrosystem (Physical infrastructure, location, resources)	
Constraints	Enablers
Continual policy changes to facilitate transformation Exposure to conflict and crime Low household incomes Limited resources, infrastructure and teacher aids Limited transport Lack of electricity and water Inadequate administration and teaching staff Disproportional increase of LTRs. Cultural practices having adverse effects on access to education (Ebersöhn, 2016; Gakure et al., 2013; Loots et al., 2012; Mansfield et al., 2018; Muyaka, 2018).	Enabling policies and health and welfare resources (e.g. social grants for parents or caregivers) Co-operation among different stakeholders in the running of schools. "Unity and cooperation among community people" (Alam, 2015, p. 1) Including indigenous knowledge into the curriculum School stability and a safe space for learners Access to services and infrastructure (Ebersöhn, 2017; Gakure et al., 2013; Lavoie & Benson, 2011; Muyaka, 2018).

Adapted from Mansfield et al. (2018)

2.4.2 Constraints to TR in Challenged Spaces

The legacy of colonialism often results in the neglect of indigenous knowledge belief systems in postcolonial countries favouring Euro-Western and Global North knowledge (McLeod, 2010). As a result of the dominance of English and the standard of postcolonial education, low literacy rates are apparent in many postcolonial countries (UNDP, 2018). The teaching of reading is regarded as one of the most troublesome tasks in T&L, prone to poor literacy statistics (Howie et al., 2017; Makhathini & Mgqwashu, 2017). Poor academic literacy is a concern globally and even more so in challenged educational spaces (Makhathini & Mgqwashu, 2017). Literacy is no longer viewed as a static process acquired via reiteration and memorisation; instead, it is considered a "dynamic process that begins at birth with strong place-based social and community roots" (Flint et al., 2019, p. 3).

Most people in rural Zimbabwean areas have a limited command of English because they only have regular exposure to their mother tongue in their community. The implementation of mother-tongue instruction would greatly benefit learners in rural primary schools in Zimbabwe since they may lack the necessary proficiency in the second language to tackle analytical skills required in the learning discourse (Ndamba et al., 2017). Despite the

advantages of mother tongue education, some stakeholders in education, and African parents, still believe in uninformed language myths that proclaim the best way to learn a foreign language is to have it as a language of instruction (Dalvit et al., 2009). Another predominant reason to keep English as the language for education was the requirement for one to be formally employed and enter higher learning institutions (Ndamba et al., 2017).

In Vietnam, there are many obstacles to launching bilingual schools and moving from a monolingual educational system to a multilingual system that embraces indigenous languages and knowledge. According to Lavoie and Benson (2011), teachers' suggestions for adapting multilingual educational systems in Vietnam include "promoting local languages and cultures in school" (p. 269), greater access to "human resources and services, to pedagogical material, and to building material to repair deteriorating schools" (p. 279) and "including indigenous knowledge in the curriculum" (p. 282).

According to Blease and Condy, a "one-size-fits-all curriculum" (Blease & Condy, 2014, p. 36) will not solve the challenges that rural multi-grade teachers and learners encounter. However, there are no PD programmes or curriculum support programmes to support the specific needs of multi-grade teachers. "Similarly, in Iran, the curriculum used in rural multigrade classrooms is the same as for urban monograde classrooms" (Blease & Condy, 2014, p. 39). The issue here is that multi-grade Iranian teachers must comply with the normal writing curriculum set out by their government. The importance of having good writing skills cannot be disputed. Most rural multi-grade teachers and learners want to follow the process and utilise the opportunity to improve their skills and become independent writers. "Learners need to acquire this skill in order to break free from the stigma and stranglehold of poverty and illiteracy" (Blease & Condy, 2014, p. 39). However, writing is a complex skill that requires the assistance of trained professionals; unfortunately, in most situations, multi-grade school teachers are not trained nor capable of providing quality education to their learners utilsing the standard curricula (Aghazadeh, 2010; Blease & Condy, 2014).

Since 1990, access to primary schools has increased dramatically throughout the developing world, but learning outcomes have lagged (World Bank, 2018). The introduction of free primary education in Kenya has had a significant impact on teachers' workload in the classroom, resulting in poor performance in Kenya's public primary schools. Many schools reported inadequate teaching and administration staff and difficulties managing workload because of a disproportional increase in LTRs (Gakure et al., 2013). In India, researchers found that teachers are mostly busy with administrative work, which they reported was one of the biggest hindrances in successfully implementing educational policies aimed at reducing educational inequalities (Patra & Panigrahi, 2018).

Research undertaken in Kenya by Muyaka (2018) investigated the community's role in restricting girls' access and participation in formal education. "The community environment

became a major hindrance to girls' access to basic education as the girls' probability to access and remain in school was readily reduced as they faced both cultural and socio-economic challenges" (Muyaka, 2018, p. 438). The community was very poor. Furthermore, cultural traditions in the communities harmed girls' access to education since early marriages hampered girls' education through the practice of "booking" for marriage as a risk of non-enrolment or dropping out of school. "The other factors reported to keep girls out of school were herding, house chores and participation in traditional rituals" (Muyaka, 2018, p. 438).

An unequal ecology in challenged educational contexts "results in fewer opportunities due to resource constraints, with few services and avenues available to develop human and social capital" (Ebersöhn et al., 2020, p. 2). This lack of capital may be intensified by features of an at-risk social context and a social origin of risk (Ebersöhn, 2016). Social origins of risk manifest in various contexts in insidious ways. In the school context, these risks include high poverty, lack of school-community participation, limited access to welfare, health and transport services, exposure to conflict and crime, and unreasonable workloads. In the kinship system, these risks include high intergenerational poverty, low parental education levels, and subsequent low household incomes (Ebersöhn, 2016).

Ebersöhn's generative theory (2012) of RRR "expands on the ecological nature of social capital by proposing that social resilience operates collectively. RRR highlights the importance of connection, support-seeking and interpersonal relationships in resilience processes" (Ebersöhn et al., 2020, p. 5). However, various factors can negatively impact the ability of social capital to bond and bridge via relationships. Poor relationship skills can negatively affect the development of RRR. "In some instances ecological variables hindered maintenance of relationships and consequently had a negative impact on promoting resilience. In rural schools…. the demands of resources spread over vast distances and individuals staying in different home bases culminated in limited time to engage with resource partners" (Ebersöhn, 2012, p. 79).

In less equal societies, more resources are available to some than to others, and those with fewer resources experience more risk. Also, "the degree of resource constraints is higher, and scarcity exists on the scale of individual, family, community, and societal level" (Ebersöhn, 2016, p. 3). Severe financial stressors can result in maladaptation due to impaired cognitive functioning, which may disrupt effective resilience processes. Poverty-related stressors capture the attention, which preoccupies thought to the extent that most cognitive resources are used to manage the stress of financial shortage (Mani et al., 2013).

Constraints across teachers' personal systems include burnout, stress and/or depression, difficulty asking for assistance, family pressure, and being overwhelmed by multiple demands, roles and responsibilities (Ebersöhn, 2014; Mansfield et al., 2018). Constraints across teacher micro- and mesosystems include limited resources, infrastructure

and teacher aids (Ebersöhn, 2017; Rahim & Chun, 2017). “Teachers, learners and families have to overcome everyday burdens of limited transport, lack of electricity and water, and scarce services to access available educational resources” (Ebersöhn, 2017, p. 1). Additional meso level constraints include an absence of community support, little or no parental involvement, sub-standard PD prospects, deficient salaries, chronic absenteeism of teachers in developing countries due to the need to partake in informal entrepreneurial activities to supplement their insufficient salaries (Castro et al., 2010; Kadzamira, 2006).

The long-term consequences of colonialism and the myriad concerns that the present South African government faces in terms of corruption, infrastructure shortages, and broader societal issues like poverty, unemployment (which leads to crime), and poor public health (Ebersöhn, 2017; Mansfield et al., 2018) create a challenged exo- and macrosystem for South African teachers to navigate. “The health risk associated with HIV/AIDS is a unique and growing challenge in South African schools” (Mansfield et al., 2018, p. 65) that has devastating consequences for academic performance and learning. The burden of these challenges often places teachers in a position where they have to adopt different roles and take on extra responsibilities (Mansfield et al., 2018).

The South African emerging economy invests 6.1% of its gross domestic product (GDP) in public education (OECD, 2014). The post-apartheid political transformation in the country has resulted in many factors challenged the successful development of the education sector. Some of these factors include “inefficient government bureaucracy, corruption, inadequate supply of infrastructure and broader societal issues such as unemployment, poverty, crime and poor public health” (Mansfield et al., 2018, p. 54). Developed economies like Australia only spend 4.6% of GDP on public education; however, the developed infrastructure, teacher training, technology, resources, and access to support staff make efficient education more viable. “[Sixty two per cent] (62%) of South Africa’s public schools are situated in the poorest and most underdeveloped South African rural communities” (Mansfield et al., 2018, p. 54), making successful education in these contexts difficult to achieve in the face of unemployment, chronic poverty and HIV (Mansfield et al., 2018). Within the exosystem surrounding the teacher, we find the physical infrastructure and resources available in the teaching environment. There are bigger macrosystem elements connected to this, such as a heavy workload and lack of resources (Mansfield et al., 2018). On a policy level, teachers need to keep up to date with continual policy changes to facilitate transformation (Loots et al., 2012). South African policy on teacher roles and competencies needs to adapt traditional roles and responsibilities for teachers working in high-risk contexts in the developing world (Ebersöhn et al., 2015).

2.4.3 Enablers for TR in Challenged Spaces

It has been found that certain teacher personal resources found in the microsystem remain the same irrespective of context (Mansfield et al., 2018). “Teacher personal resources (optimism, perseverance, motivation) and adaptive coping strategies (relational support, problem-solving)” (Mansfield et al., 2018, p. 53). Additional enablers across personal systems include adaptive coping strategies (e.g. relational support and problem solving), having “sense of moral purpose and commitment” (Gu, 2014, p. 4) (e.g. making a difference), intrinsic value concerning enjoying work as a teacher and self-care (e.g. exercise and healthy habits) (Ebersöhn, 2014; Mansfield et al., 2018). Enablers of resilience across exo- and macrosystems include resources (e.g. vegetable gardens); school stability and a safe space for learners; health and welfare resources (e.g. social grants for parents or caregivers); and access to services and infrastructure (Ebersöhn, 2017).

Research on what enables effective literacy frameworks for young learners in Malaysia indicated that the “teachers acknowledged the critical need for creating effective and interesting activities that can engage young learners cognitively and affectively” (Rahim & Chun, 2017, p. 115). Likewise, it is acknowledged in the literature that the affective domain of teaching is “inextricably interwoven in educational discourses and practices” (Rahim & Chun, 2017, p. 121), which adds to the teachers’ emotional strain. Therefore, the advancement of emotional skills in the primary school classroom has significant ramifications that can lead to better learning results and emotional development (Rahim & Chun, 2017).

Research on primary school learners’ academic performance in rural Bangladesh found that community involvement in children’s education could significantly support schools and families. It was a critical avenue to improve education in rural primary schools. The research identified “communication and support given to the school, the care for community children, and any unity and cooperation exhibited amongst the community’s population as important” (Alam, 2015, p. 1).

In addition to other avenues of support (such as community members or extended family members), teachers can be a source of comfort for the children they teach; therefore, a teacher’s sense of care and compassion is particularly relevant to the contextual demands placed on them (Ferreira et al., 2010). School environments in South Africa play an instrumentally important role as a protective factor for orphaned children in the HIV/AIDS epidemic (Bhana et al., 2006). Regarding protective factors, responses validated the importance placed on education as an avenue of hope. Therefore, teachers and schools function as important protective resources in poverty-stricken communities (Ebersöhn, 2017).

Liebenberg et al. (2016) also found that for young people living in socioeconomically disadvantaged communities, schools are frequently the sole formal source of service provision. Quality service delivery in these contexts is linked to successful outcomes. As a

result, school personnel are in a unique position to assist the positive psychosocial outcomes of young people living in challenging circumstances. Schools provide a potential resource that can support the resilience processes that scaffold healthy outcomes despite the presence of challenge. Particularly, it has been discovered that learner involvement and performance are predicted by the nature of teacher-pupil relationships (Liebenberg et al., 2016). Therefore, education spaces that provide spaces for positive social connections between teachers and learners may foster resilience (Liebenberg et al., 2016; Theron & Theron, 2014).

Research on factors that affect the performance of Kenyan primary schools discovered that when multiple stakeholders in the running of schools worked together, it resulted in more dedication from teachers and improved performance from both teachers and learners (Gakure et al., 2013). School or governmental leadership, support, and encouragement from loved ones and co-workers are central to TR (Coetzee, 2013). Other important contextual factors in the South African context which have been shown to "sustain teachers in their profession include empathy to or instilling hope in learners, having a sense of accomplishment in their work by employing problem-solving strategies, a positive attitude, and drawing from their spirituality" (Ebersöhn et al., 2020, p. 9). Furthermore, results indicated that teachers were motivated by the hope and inspiration that they could model to learners (Coetzee, 2013).

Understanding systemic factors in workplace conditions that support sustained teacher well-being is crucial in understanding TR (Gu, 2018). From a socio-ecological perspective, it is important to understand how these pathways work in conjunction with systemic resources in dynamic processes to enable supportive spaces (Ebersöhn, 2014). Schools and universities in challenged educational contexts are seen as critical avenues in righting the wrongs of post-colonialism. As a result, in challenged educational contexts, coping strategies linked to strong beliefs, robust professional identity as academic caregivers, and teachers' empathetic abilities have helped teachers refocus their thoughts to keep them buoyant and dedicated to teaching (Coetzee, 2013).

Research on resilience in South African schools points to the importance of relationships to function as a collective power to meaningfully support at-risk communities and mitigate the negative effects of a high-risk ecology by using collaboration as a key protective resource (Ebersöhn 2012, 2019; Mansfield, 2018; Theron & Theron, 2010). "A growing body of research on coping has begun to identify the occurrence and the practical relevance of collective coping behaviours" (Ebersöhn & Loots, 2017, p. 81). Government interventions have had little success in addressing the problem of poor quality education (Mlachila & Moeletsi, 2019). For this reason, South African teachers stress the "critical role of community partnerships to support the needs of students and their families" (Mansfield et al., 2018, p. 66).

Although some South African studies have explored personal and contextual protective resources and pathways that promote TR, there is still a need for further research

in this area to enable TR in the South African education context. Global North perspectives inform and dominate knowledge generation on socio-ecological resilience processes. The suppression of indigenous knowledge systems implies a "cultural mismatch between life worlds" (Ebersöhn, 2019) of people preferring non-Euro-Western views. These dominant epistemologies determine policies and the distribution of health and educational resources. This cultural mismatch indicates a higher likelihood of negative education and well-being outcomes for those previously marginalised who hold different worldviews from these dominant epistemologies (Ebersöhn, 2019). Well-being research and knowledge generation relevant to unequal contexts is necessary to tackle negative educational and economic outcomes prevalent in more unequal societies (Ebersöhn, 2016).

At the macrosystem level, where there was more variety in welfare and education policy, there were more differences in context. At every level of the South African ecology, chronic poverty and the accompanying compounded psycho-social problems are visible. As a result, resilience enabling pathways necessitate the mobilisation of underused resources, community building, and the development of collaborations (Ebersöhn, 2018; Mansfield et al., 2018). Communities are obliged to take charge of their own well-being as social agents in the face of massive structural inequalities.

2.5 Defining SC and the Relevance for TR

2.5.1 Introduction

The following section explores SC as it pertains to TR. Section 2.5.2 defines SC across different subfields of psychology and related concepts (social capital, affiliation, trust, reciprocity and flourishing). Section 2.5.3 discusses how international knowledge of SC matters for the teaching profession. This discussion is followed by a discussion on how SC matters for TR in a South African challenged educational context in Section 2.5.4. In Section 2.6, I present a conceptual framework for my study that explores the significance of SC as a pathway to TR in challenged educational contexts.

2.5.2 Defining SC and Related Concepts

The importance of SC is apparent in many branches of psychological research, such as developmental (Erikson, 1959; Olsson et al., 2013; Stavrova & Luhmann, 2016), clinical (Jung, 1933; Lee & Robbins, 1998; Lee et al., 2001) and social psychology (Heath, 1999; Seppala et al., 2013). Despite a vast amount of literature on the subject, there is not yet an agreed-upon definition of SC, nor an agreement on what constructs comprise SC (Hortulanus et al., 2006; Seppala et al., 2013; Zavaleta et al., 2014, 2017). "The term social connectedness represents one's subjective sense of connection not only to close others but to the whole social world, which includes close others, strangers, and the community at large" (Seppala et al., 2013, p. 415). For work in resource-constrained Global South settings, SC is defined as a person's

subjective sense of having meaningful and positive relationships with others in a social context (Seppala et al., 2013; Zavaleta et al., 2014, 2017).

All SC definitions have in common the importance of interpersonal relationships and the degree to which someone is connected to their social context (Seppala et al., 2013). Psychologists have proved empirically that SC is a key human need, mirroring the beliefs of Abraham Maslow (1943), one of the founding fathers of personality psychology. Abraham Maslow theorised that when "basic physiological and safety requirements are met, a person's primary psychological need is a sense of affectionate and loving connection to others" (Seppala et al., 2013, p. 411). Social relationship dynamics influence one's personal identity, and participation in social groups is essential for human reproduction and survival. Thus, relationships play an essential role in meeting basic needs from birth to old age (Baumeister, 2005; Koltko-Rivera, 2006).

SC is referred to by different terms in different subfields of psychology. For example, "the subfield of developmental psychology uses the term *attachment*; clinical psychology and related socio-logical research employ the terms *social support* and *loneliness*; and social psychology applies the terms *belongingness*, *social connectedness*, and *social exclusion*" (Seppala et al., 2013, p. 413). These different research terms all refer to the same overarching concept of SC (Seppala et al., 2013). Even though different terms for SC come from different research fields, "the terms *attachment*, *relatedness*, *social support*, *loneliness*, *belongingness*, *social connectedness*, and *social exclusion* are similar and differ only slightly— with regard to the breadth of their scope. For example, some terms refer exclusively to social connection with close others (for example, *attachment*), while others include the larger social community (for example, *social connectedness*)" (Seppala et al., 2013, p. 416).

"Formulations articulating the upside of the human experience came from clinical (Jung, 1933), developmental (Erikson, 1959), existential (Frankl, 1963), and humanistic (Rogers, 1961) psychology" (Ryff, 2018, p. 242). Their theories define what it means to be mentally well, actively engaged, and self-actualised in various ways. All the above perspectives emphasise interpersonal ties as central to a positive, well-lived life (Ryff, 2018). As existential perspectives emphasise, creating meaning and direction in one's life is essential to living genuinely. According to Maslow, self-actualisers feel strong empathy and affection for others and can experience tremendous love and sustain intense relationships. However, Erikson's perspective of adult development indicates that such individuals are stressed in close relationships with others (expressing intimacy) and leading or directing others (generativity) (Ruini & Ryff, 2016).

Clinical psychology research on the benefits of SC invariably confirms that social support reduces psychological distress, including depression and anxiety, and promotes psychological balance in chronically stressful circumstances. Social support has been shown

to have important implications for psychological health and one's physical health (Cacioppo et al., 2000; Ernst & Cacioppo, 1999; Taylor et al., 2002). Research has linked the following health benefits to social support: less susceptibility to heart attacks, faster recovery from heart disease, better diabetes control, less pain in arthritis patients, and protection against immune-related disorders. Stress increases the risk of unfavourable health consequences by compromising the immune system and creating vulnerability to opportunistic diseases and infections (Corr, 2005; Taylor et al., 2002).

Conversely, it is also acknowledged that the absence of SC denotes social isolation and exclusion (Barry, 1998; Sen, 2000; Zavaleta et al., 2014, 2017). Loneliness is marked by A lack of positive social connections with others invariably leads to loneliness (Heinrich & Gullone, 2006; Salimi & Bozorgpour, 2012). People have different needs for belongingness and connectedness. People who have difficulty forming and maintaining meaningful connections are more prone to suffer from a sense of deprivation, which appears as symptoms of anger, despair, anxiety, and loneliness (Baumeister & Leary, 1995; Cacioppo et al., 2000).

Coleman (1988), one of the principal theorists of social capital, defines it as comprising different networks of individuals engaged in mutual aid based on reciprocity and high levels of trust. Individuals can use these networks as resources, and they can also be used to encourage collective action. Social capital is distinct from social networks and support concepts dependent on personal characteristics. Social capital is a collective characteristic of society and not internal to the individual. Social capital is an ecological attribute of the social framework, not of specific individuals within the social structure (Lochnera et al., 1999). Whereas physical and human capital is embodied in tangible observable material, social capital is less substantial and is embodied in relations between people (Coleman, 1988). Social capital is a critical resource for developing resilience, which is developed within the school through interactions with co-workers, leaders/mentors, and outside the school with social networks, family and friends (Le Cornu & Ewing, 2008; Roffey, 2012).

Theories on social capital have advanced the relevance of social connection for economic and sociological analysis. However, these theories do not get to the heart of addressing the social connectivity of a person (Zavaleta et al., 2014). More importantly, one's own assessment of their social relations needs to be a central component of this evaluation. Social support has a valuable impact only if it is affectionate and perceived as such, and is therefore highly subjective (Cacioppo et al., 2000; De Jong Gierveld, 2010). One's past experiences, and the individual's perceptions, determine a person's subjective evaluation of the quality of social relations (Zavaleta et al., 2014).

It is important to consider that the mere existence of a social network does not necessarily mean that the individual in that network will be open to social support. Instead, the delivery of effective social support must be acknowledged as support by both the giver and

the receiver. Similarly, as explained by Ebersöhn and Loots (2016, p. 81), “the existence of social capital does necessarily guarantee that social support will be available when needed by people in stressful situations (Nurullah, 2012)”. Kim et al. (2006) propose that the cultural context, gender, reciprocity, provider motivation, and the fitness of a match between the kind of stressors and the type of support provided impact the outcome of receiving and providing support.

In a general sense, “affiliation” refers to a state of being closely associated with or connected to an individual or group (Merriam-Webster, n.d.). SC is a subjective state, based on the perceptions of the individual, similar to states like loneliness and affection. Although it includes a broader scope of connection, it still emphasises affectionate connection to others, even when the relevant community consists of strangers (Seppala et al., 2013). In another sense, affiliation is closely linked to voluntary association with groups such as professional organisations, trade unions, or volunteer groups (Smith, 1994). In this instance, association with a broader community and membership in the group are voluntary so that members can withdraw from the group at any time. Such voluntary connections are effective vehicles for self-expression and identity formation (Stavrova & Luhmann, 2014). Such members experience meaning in life and self-expression through their subjective sense of belonging to the community. Their willingness contributes to the community through their active participation and voluntary association with the group. (Smith, 1994; Stavrova & Luhmann, 2014).

The extent to which people experience social support is dependent on several aspects. These include: how large one’s support network is, whether the right kind of support comes from the right kind of person and whether the support provided is appropriate for meeting the stressor (Taylor et al., 2002). This links back to OPHI’s conceptualisation of SC involving both QUAN+QUAL aspects and the complex and sometimes indirect interplay between the two (Zavaleta et al., 2014). For example, someone may have a large support network, but the support provided may not be appropriate for meeting the stressor. Furthermore, the experience of social exclusion is dependent on individual characteristics that differ from person to person (Corr, 2005).

A healthy connection to the external world leads to a healthy sense of self, increasing self-esteem and promoting a meaningful and balanced life. Abundant research confirms the established benefits of group living, including the health benefits of social contact and social support, particularly during stressful times (Barry, 1998; Sen, 2000; Zavaleta et al., 2014, 2017). Despite the multiplicity of pathways towards growth, “all traditions conceptualize the highest stage in human development as the dis-identification and transcendence from the individual self, by acknowledging its interconnection with a broader and more complex reality” (Delle Fave & Soosai-Nathan, 2014, p. 9). Given this complexity, it is plausible to claim “that

connectedness and interdependence are to humans as water is to fish. The well-being of humans cannot be conceptualised without interconnectedness/relatedness as the welling of a fish without water" (Delle Fave & Soosai-Nathan, 2014, p. 36). The South African belief system of "Ubuntu" conceptualises identity as it emerges through relationships. There is little emphasis on the stand-alone individual in an African worldview but rather on a connection with social and emotional ties. These ties form part of every community member's obligations (Ebersöhn et al., 2014).

Similarly, trust has been identified as an important feature in developing social capital (Coleman, 1988; Tomilson, 2020). Trust is also acknowledged as an important measure of internal SC and internal isolation (Zavaleta et al., 2014, 2017). The conceptualisation of characteristics as either internal or external (or subjective/objective) relates to a differentiation between behaviour patterns and personal attitudes (Hawthorne, 2006). Thus, social networks are seen as behavioural, while trust is seen as an attitude (Zavaleta et al., 2014). International TR has highlighted the importance of trusting relationships between teaching co-workers for TR (Le Cornu, 2013). A sense of trust in school leadership has also been indicated in the literature by several scholars as a factor affecting teacher attrition and motivation (Le Cornu, 2013). Ebersöhn (2012, 2013, 2019) has identified trust in community networks as an essential factor affecting TR for South African teachers. As reciprocity and trust have been identified as important facilitating factors for TR, especially in "Ubuntu"-Afrocentric, resource-constrained contexts, this calls for further South African research in this area.

Reciprocity has been identified in the literature as an essential mechanism for the development of social capital (Roffey, 2012). Social capital has increasingly been brought into debates about what enables healthy communities to flourish. From this perspective, people are most likely to be healthy living in communities that cultivate trust, participate in formal and informal support networks, exercise reciprocity, and have positive local identities (Sandefur et al., 2006). Providing and receiving social support is seen as a behavioural expression of SC beliefs and practices synonymous with an Afrocentric cultural worldview (Ebersöhn, 2019). From a collectivist viewpoint, communities function through communal societies and smart partnerships sharing costs and incomes in financial undertakings (Ebersöhn, 2019).

Social-emotional competence can be defined as "a set of skills including recognising and managing our emotions, developing caring and concern for others, establishing positive relationships, making responsible decisions, and handling challenged situations constructively and ethically" (Zhou & Ee, 2012, p. 28). The documented benefits of social-emotional competence for teachers include reduced stress, reduced risk of burn-out, improved self-efficacy and greater job satisfaction (Anari, 2012; Collie & Perry, 2019; Gu & Day, 2013; Mansfield et al., 2016). In South African TR research, Ebersöhn (2012, 2013, 2019) has identified social-emotional competence as an enabling factor for TR by suggesting that social-

emotional competence in Afrocentric culture is a critical aspect in enabling resilience through the cultural mechanism of “flocking.”

The need to feel belongingness and connectedness with others stems from self-determination theory and has been identified as an essential psychological need in human *flourishing* (Ryan & Deci, 2000). Keyes (2002) operationalises *flourishing* as the presence of mental health (as opposed to the absence thereof), characterised by symptoms of positive feelings/functioning. The literature indicates that social support processes buffer sympathetic responses to acute stress in adults by releasing Oxytocin (Taylor et al., 2002). Oxytocin appears to inhibit cortisol secretion in humans and down-regulate responses to stress. “The formation of enduring bonds may play an important role in structuring adaptive responses to stressors, since the mechanisms that arose to facilitate their development likely evolved in environments that presented numerous survival challenges” (Olff et al., 2013, p. 1884). Our need for safe ties and our vulnerability to the ups and downs of our relationships persists throughout adulthood. Unlike troubled adult relationships, which are linked to higher stress levels and weakened immune systems, caring relationships are linked to improved physical health, including heart and immunological function and stress tolerance (Cozolino, 2006).

2.5.3 International Knowledge on how SC Matters for the Teaching Profession

SC, as it pertains to TR, is closely linked to research on relational resilience, where support is harvested through social relationships (Jordan, 2004). Jordan’s (2004) model of relational resilience proposes that all psychological growth occurs in relationships. This model challenges the basic assumptions of the traditional theories of human behaviour - which focus on individual traits as primary components of development. Jordan's relational model of resilience resonates strongly with how caring and trustworthy relationships are conceptualised in the educational literature, particularly regarding how they influence teachers' feelings of efficacy, commitment, and resilience (Gu, 2014). According to the theory of relational resilience, TR is a relational dynamic that stems from an individual's ability to maintain emotional and social ties with the children and adults with whom they work (Gu, 2014; Jordan, 2004). SC functions as a resource, supporting personal and professional growth in an educational environment (Ebersöhn, 2019; Gu, 2014).

TR literature has stressed the importance of relationships in building resilience, and more specifically, how these relationships need to be characterised by support and reciprocity to reinforce people’s innate personal networks that involve self-efficacy, positive emotions and adaptive problem solving (Ebersöhn & Loots, 2017; Gu, 2014; Le Cornu & Ewing, 2008; Luthar & Brown, 2007).

Global TR literature has identified social support as an enabling factor for TR, highlighting support from teaching co-workers, school leadership, administrative staff, and support from family and friends as resilience-enabling for teachers (Day & Gu, 2014; Gu, 2014; Le Cornu, 2013). Personal support networks, particularly mutually empathic and responsive ones, are increasingly viewed as vital for supporting resilience (Le Cornu, 2013). School culture and leaders (Mansfield et al., 2016), and supportive, solid social networks are all examples of contextual effects (Gu & Day, 2013). Teachers' relationships with their learners and their parents, co-workers, peers/leaders, family and friends have all been shown to work together to promote TR. Positive and mutually beneficial relationships encourage teachers to maintain commitment and passion even in the face of ongoing challenges in the teaching profession (Gu, 2018; Le Cornu, 2013).

There is pervasive worldwide enthusiasm in the education field to retain the services of early career teachers (Cornu, 2008). Building resilience in pre-school teachers allows them to invest in support systems and professional development that prepare them to weather the challenges and adversities inherent in the profession. Cornu (2008) explored the importance of initial teacher education in developing resilient prospective teachers. The research used Jordan's (2004) model of relational resilience to explore pathways to resilience in pre-service teachers. Cornu's (2008) research concludes that learning communities that provide peer support and mentorship are the most effective avenues for developing resilience in teacher preparation programmes. Additionally, well-being can be promoted by ensuring that school leaders put support strategies in place to promote collaboration among staff to build each other's well-being (Mansfield et al., 2016).

From a socio-ecological perspective, SC is viewed as a protective resource that can be mobilised as a pathway to support TR (Gu, 2018; Ungar, 2012). Social capital is a critical resource for developing resilience, which is developed in school contexts through interactions with colleagues, mentors, and school leaders, and in the broader community with family members, friends, and social networks (Gu, 2018; Theron, 2018). Resilience describes mutually beneficial exchanges between individuals and their context (Masten, 2001). Therefore, resilience is not an attribute of the individual or the context in isolation. Thus, resilience should be studied using change- and diversity-sensitive developmental methods within a non-reductionist theoretical frame. When conceptualised within a social-ecological theoretical framework, resilience consists of mutually beneficial exchanges between individuals and their contexts, which indicates the reciprocity and elasticity of these relations and leads to an optimistic view of the durability of relational resilience (Ebersöhn, 2019; Lerner, 2006; Ungar, 2012).

2.5.4 SC Matters for TR in a Challenged, South African Context

Resilience scholars propose that relational resources that support teachers in behaving in ways that prioritise relationship-building can help teachers build resilience (Ebersöhn, 2019; Gu, 2014; Gu & Day, 2013; Le Cornu, 2013; Theron, 2016; Ungar, 2012). This proposition is specifically relevant for resource-constrained contexts, such as post-colonial South Africa. Global South scholars have shown that the context of inequality calls for particular lenses to identify and explore avenues that support positive outcomes for TR. Individuals and communities are marginalised when a society is marked by structural inequity; therefore, education agendas that promote healthy relationships and a sense of belonging are significant as resilience-enabling pathways in challenged contexts (Ebersöhn, 2019). Ebersöhn (2017) found a sense of belonging to one's neighbourhood and teaching co-workers essential for TR. One of the most frequently adopted coping strategies used by teachers is seeking support from co-workers and having significant adult relationships outside work (Graven, 2002). In education, communities of practice have been documented as protective pathways that provide teachers with the professional resources they need to resile by highlighting the benefits of a community of practice for teacher PD and professional competence (Graven, 2002; Islam, 2012).

Ferreira et al. (2013) refer to the importance of collaborative partnerships as a key to teachers' roles as agents for change in challenged contexts. Collaborative partnerships include role-player collaboration on problem-solving and peer coaching, in which teachers work together to learn new skills by sharing, observing, and teaching one another. Teachers have highlighted school culture and leadership as essential external protective resources. (Ainsworth & Oldfield, 2019). Without organisational support, teachers may find it difficult to face everyday challenges inherent in the teaching profession (Mansfield et al., 2018). The importance of effective school leadership and management is highlighted in the school's ability to create a culture that sustains and nurtures teachers' capacities through recognition and acknowledgement of their efforts. In addition, the role of administrative support and the parental support of teachers' efforts is emphasised (Bobek, 2002). Additionally, mentor programmes and personal fulfilment in a learning community act as relational incentives to sustain teachers (Beltman et al., 2011).

An external support system constituting friends and community resources has been noted as important for TR, as TR is inherently a relational process (Le Cornu, 2013; Theron, 2018). Teachers who can collaboratively share available resources can buffer against the challenges of structural disparity by providing more time to teach and resources to deal with challenges (Ebersöhn, 2019). Accordingly, professional networks allow and advocate help-seeking behaviour to attain emotional and intellectual resources and information, and, as a result, create new resources and achieve a sense of belonging (Gu & Day, 2013).

In South African research, the resilience pathway of flocking (Ebersöhn, 2012, 2013, 2019) has been identified as resilience-enabling for teachers in challenged contexts, where teachers buffer against isolation by capitalising on relationships with people around them. Acknowledging that risk and resilience are largely socially determined, social ecologies can be adapted in ways that will address structural and socio-political barriers to resilience. “Resilience research in South Africa highlights that an Afrocentric way of being shapes processes of positive adjustment” (Ebersöhn et al., 2020, p. 43). Given the structural and cultural constraints and enablers of postcolonial South Africa, these collective social technologies have advanced over time in their implementation. They remain significant in South African men's and women’s everyday lives (Ebersöhn, 2019).

In the “African culture, the manifestation of universal interconnectedness at a human level is represented by ‘Ubuntu’, meaning ‘humanity to others’” (Canonical, 2022, para. 1). “Ubuntu” can be described as “the social philosophy that animates African culture and its capacity to express compassion, reciprocity, dignity, harmony and humanity in the interests of building and maintaining community” (Delle Fave & Soosai-Nathan, 2014, p. 35). “Ubuntu” represents the strong interdependent nature of human beings existing within a network of family, fellowship and community. “It is grounded in the belief that a person is a person through other persons” (Delle Fave & Soosai-Nathan, 2014, pp. 8-9). In light of this, the role of “Ubuntu” as a cultural method to build mental health becomes important (Delle Fave & Soosai-Nathan, 2014).

Other South African research has also focused on social support as a pathway for TR in the context of HIV/AIDS and in rural educational contexts (Ebersöhn & Ferreira, 2011, 2012). Ebersöhn and Loots (2017) identified instrumental social support as resilience-enabling when combined with teacher agency in resource-constrained South African schools. From a social-ecological perspective, this process requires meaningful social support avenues that can be both formal and informal. Generally, informal support networks are embedded in naturally occurring relationships. An example of an informal support service can be informal connections to learners or work co-workers (Sanders et al., 2015). “Even though social ecologies offer informal and formal resources” (Ebersöhn et al., 2020, p. 4), the perceived availability of relational and contextual resources differs greatly between contexts (Ungar, 2012). Internationally, the perceived variability of resources is well-documented by qualitative studies, but resilience research indicates an absence of quantitative accounts in developing countries (Theron, 2016).

Consistent with international trends in resilience research, South African resilience studies have indicated conceptualisations of resilience as influenced by cultural practices and beliefs (Ebersöhn, 2017; Theron, 2011). SC as a resilience-enabling pathway involves the capacity of an individual to identify and access psychological, social, cultural, and physical

resources. A more contextualised understanding of an individual within the environment in which they live is emphasised by an ecological perspective of resilience that argues against the individualistic paradigm (Ungar, 2012). In this view, a person's social environment, and the goodness of fit between elements of the mesosystem (interactions between family, school, and community systems) (Bronfenbrenner, 1979), predict progress in difficult circumstances.

In a South African context, teacher agency is explained as “an outcome of collectivist coping, using instrumental social support for resource management” (Ebersöhn & Loots, 2017, p.80), which becomes especially relevant for coping in high-risk ecologies. Teacher agency requires the capacity to identify, access and mobilise obtainable resources for social support. Research on social support management in South African schools found that flexibility and open communication strategies enabled different role players to manage resources and mobilise assets “by linking them through the formation of new networks and partnerships” (Ebersöhn & Loots, 2017, p. 86).

Teachers who could network with organisational role players successfully could mobilise social support in their communities. Therefore, healthy communities typically utilise social networks and consequential participation to put in place and maintain relationships between all the members and stakeholders of the community. Ebersöhn & Loots, 2017). Teachers employed interpersonal routes to build resilience in high-risk school settings, evidenced by group effectiveness abilities (group communication, roles and duties, good group dynamics) (Ebersöhn et al., 2015).

In summary, postcolonial challenges relevant to TR and SC support the significance of exploring SC as a pathway to TR in these contexts. The dangers of social isolation and the exclusion of individuals from social resources (Ebersöhn, 2019) are compounded as indigenous people continue to experience challenges in accessing education opportunities, employment and health services (Ebersöhn, 2019; Moletsane, 2012). As structural inequality supports unequal resource distribution and the marginalisation of indigenous people (Ebersöhn, 2019), the emphasis on interpersonal relationships, connection and support-seeking in resilience processes becomes important.

2.6 Building a Conceptual Framework on SC as a Pathway to TR in a Challenged Educational Context

2.6.1 Introduction

It is evident from existing knowledge (as discussed in this chapter) that teachers in a Global South context find themselves in a context of chronic and cumulative challenges. Despite this, it has also been found that teachers have protective resources that they can draw on to enable positive adaptation to risks. TR has highlighted the importance of contextual resources surrounding teachers as important, specifically, an external support system constituting peers,

co-workers and community resources for TR (Castro et al., 2010; Gu, 2018; Le Cornu, 2013). As TR is inherently a relational process, teachers feel most confident when they can sustain and be sustained by relationships (Gu, 2018; Le Cornu, 2013). The Isithebe study proposes that an intentional SC intervention with teachers in challenged educational contexts may be meaningful to enable TR, especially in challenged contexts. Section 2.6.3 discusses the conceptual framework of my study, which emphasises a social-ecological perspective to explore resilience processes that result from the reciprocal relationship between the teacher and the quality of the broader social ecology (Gu, 2018; Mansfield et al., 2012; Masten & Wright, 2010; Theron & Theron, 2014).

2.6.2 Conceptual Framework of the Study

As eluded to in Chapter 1, resilience assumes the existence of hardship and adaptability, which will allow existing protective resources to be utilised to achieve positive outcomes. Initially, resilience research was focused on providing insights into qualities that fostered resilience and has moved to understand the interplay between internal traits and external ecologies that support resilience building (Bronfenbrenner, 1979; Theron & Malindi, 2010; Ungar et al., 2013). Bronfenbrenner's bio-social-ecological systems model of human development evolved in step with advances in resilience theory, which shifted from a narrow focus on traits to multi-systemic insight into reciprocal person-environment interactions (Masten, 2018). The social-ecological model is process orientated and highlights how the dynamic interactions between teachers' professional values and their surrounding professional contexts influence their effectiveness and commitment as teachers (Gu, 2018). "Social-ecological stakeholders (such as parents, service providers, or policy makers) support the process of resilience by making relevant resilience-enabling resources (e.g., good schools, mentorship opportunities) available and accessible" (Van Rensburg et al., 2018, p. 74).

"A systems approach emphasises the importance of looking into teachers' inner and outer professional worlds to understand why so many remain motivated and passionate about making a difference" (Ebersöhn et al., 2020, p. 4). The relationship between the quality of the broader social and physical eco-system and the teacher's competence in resilience-building processes is reciprocal, rather than sequential or conditional. From a social-ecological standpoint, it's vital to remember that teachers' resilience processes are rooted in various contexts in their daily professional lives, which are fundamentally uncertain and unpredictable (Gu, 2018).

Even though social ecologies provide both informal and formal resources, resource mobilisation differs depending on the perceived availability of informal and formal resources (Ungar, 2012; Van Rensburg et al., 2018). Teachers are only effective as formal resources if the learners they work with perceive them as supportive. Varied resource use also applies to

community members' perception of resources. When community members view resources as appropriate and resonating with their culture and contextual positioning, they are would be more comfortable about using them (Rensburg et al., 2018; Theron & Theron, 2014; Ungar, 2012).

TR signifies adaptive coping processes as teachers mediate the effect of barriers by engaging in specific positive adaptive coping behaviours (Ebersöhn, 2017; Mansfield et al., 2012; Skinner & Zimmer-Gembeck, 2007). Protective resources are defined as characteristics (related to a group or situation) that predict a positive outcome in the face of adversity. Examples of protective factors include personal strengths, supportive caregivers, high self-efficacy, altruistic motives, and material and social capital (Castro et al., 2010; Ebersöhn, 2016; Rutter, 2012). A social-ecological approach demonstrates that resilience in teachers is a relational dynamic that involves both individual traits and the contextual environment of that individual (Ungar et al., 2013). This approach does not treat the relational context of an individual as a given protective factor but instead emphasises the relationship between the individual and the environment by acknowledging the dynamic interplay between the two (Gu, 2018). An individual's capacity for resilience is acquired over time as they learn to navigate their way through social, cultural, and physical resources that are facilitated by interactions with the individual's environment. This type of developmental-contextual conceptualisation of TR is fundamental in understanding why some teachers can remain in the profession despite challenged conditions (Gu, 2018).

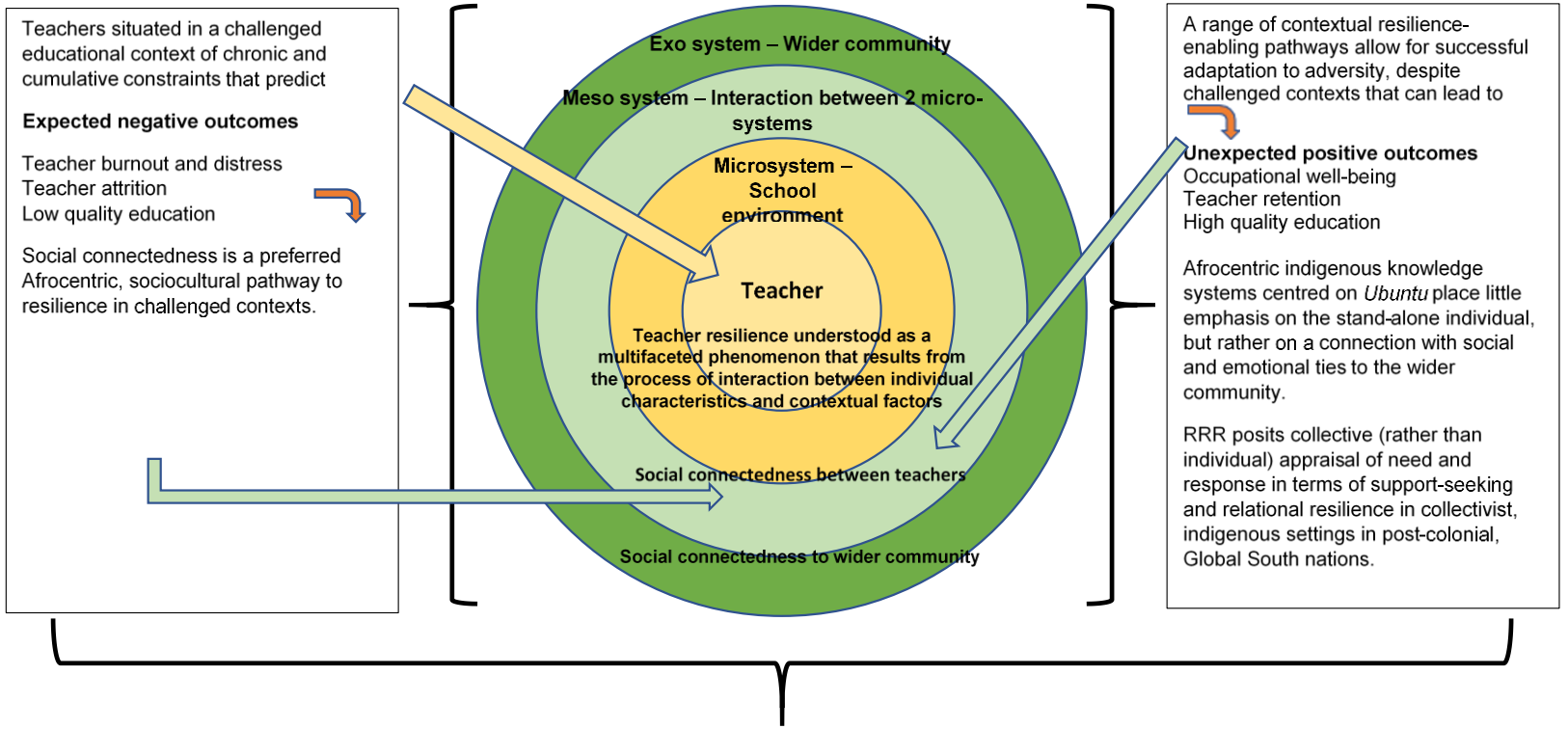
"Global North countries have developed economies, where the education system has benefited from investment in infrastructure, teacher training, technology and resources" (Ebersöhn et al., 2020, p. 4). Teachers' resilience is linked to similar socio-ecological risk factors and protective resources throughout micro- and mesosystems. However, at the exo- and macrosystem levels, there were significant differences in context, with more variety in country-specific health, welfare, and education systems/policies (Mansfield et al., 2018). However, at the exo- and macrosystem levels, there were significant differences in context, with more diversity in the country-specific health, welfare, and education systems/policies. Poverty is endemic in South Africa, and the situation is exacerbated by high levels of unemployment and long-term health hazards. Resilience requires "drawing on available and unique cultural and social resources, such as community building, developing partnerships, mobilising unused resources and applying for social development grants" (Ebersöhn et al., 2019, p. 4).

A teacher's ecological context comprises the microsystem (the teacher's immediate environment), the mesosystem (interactions between microsystems), and the exo-/macrosystems ("physical infrastructure, characteristics of a location and resources, connected to this are the broader macrosystem factors such as policies related to health,

education and welfare)" (Mansfield et al., 2018, p. 55). Over time, these different levels of the environment interact and transact with one another, influencing development and adaptability (Luthar et al., 2000). "In this regard the teacher resilience process involves the dynamic interplay between personal, relational, physical (school infrastructure) and broader country-specific health, welfare and education systems to address risks through maximising resources" (Mansfield et al., 2018, p. 55). Individual traits and assets are supplemented with interpersonal protective resources found within ecologies, making choices regarding resilience asset-dependent. Therefore, it is necessary to explain how groups of people can rise above their challenged contexts predicting maladjustment and poor outcomes. (Ebersöhn, 2014; Ungar, 2012). The literature puts forward that the circumstances in which people work, play an important role in shaping resilience, providing risks and resources that either promote or challenge resilience (Beltman et al., 2011; Day & Gu, 2014; Ungar, 2012). My study was guided by a conceptual framework incorporating micro- and macro ecologies affecting TR and the risks and resources to support TR in each context (Mansfield et al., 2018). The micro- and mesosystems of teachers comprise personal systems that include learners, co-workers, and support systems. Teachers use resources within these personal systems to manage risk (Mansfield et al., 2018). Teachers have been reported to cope with negative experiences as long as they have positive experiences, such as strong relationships with learners and co-workers, inside the mesosystem (Theron, 2018). Figure 2.1 shows the conceptual framework of my study.

Figure 2.1

Conceptual Framework of my Study



The study proposes that social connectedness (a person's subjective sense of having meaningful relationships with others in the social world) is a potential pathway to supports teachers to resile as enablers and promote quality education and teacher occupational well-being.

Viewed through RRR lens ➡ Teachers resile when they mobilise relationships to buffer against challenge and promote unpredicted positive outcomes (job satisfaction, retention, quality education practices).

The socio-ecological lens has the advantage of not assuming that the social and relational context of employment is always a TR enabler. “The shift in focus on the reciprocal capacity of the individual teacher and the quality of the multiple reciprocating systems offers a more powerful and nuanced lens to inform knowledge of teacher resilience (Gu, 2018). The development and monitoring of an intentional social connectedness intervention offer a nuanced understanding of how and why social connectedness may enable teacher resilience in this specific context” (Ebersöhn et al., 2020, p. 5).

Ebersöhn’s generative theory (2012, 2019) of RRR is built on social capital’s ecological nature and proposes that social resilience operates collectively. Flocking, as social support, mobilises social capital, which mobilises social and economic capital. Resilience-enabling “flocking” practices include smart partnerships (these structures provide the supply management for social support) sharing costs and incomes in financial undertakings (Ebersöhn, 2018). The RRR theory proposes that “social structures associated with religion and education are crucial to support resilience and buffer against adversity” (Ebersöhn, 2019, p. 36). Schools and churches appeared to be important and dependable physical structures from which social support can be drawn in high-risk ecologies. These “flocking” mechanisms function as resilience-enabling ecologies that produce better than expected outcomes (Ebersöhn, 2019).

Research with South African teachers highlights Afrocentric indigenous knowledge systems in contexts with high needs and where distress is viewed as a collective challenge (de Gouveia & Ebersöhn, 2019). In this context, a preference for SC values and beliefs could indicate that teachers draw together in times of distress to support collective well-being outcomes (Ebersöhn, 2012, 2013, 2019). In non-Western societies, indigenous psychology perspectives on well-being are informed by the fundamental principle that individuals are not distinct or isolated; rather, they are thought to exist in relation to their community. From an indigenous psychology perspective, SC refers to the idea that people live and function in relation to others (de Gouveia & Ebersöhn, 2019). Various studies have highlighted the role implicit and explicit social support play in well-being (Constantine & Sue, 2006; De Gouveia, 2015; Ebersöhn, 2019; Suh & Oishi, 2002). “Implicit social support denote that people benefit from social connectedness by receiving or giving emotional comfort to others in their lives. Explicit social support signify instances where people actively draw on social networks for support to provide concrete services to others facing challenges” (Ebersöhn et al., 2020, p. 32). In terms of implicit social support, family and friends collaborate to create a source for facilitating adaptive coping strategies through an internal support network that enables personal empowerment and provides cultural resources These implicit resources allow individuals to modify their outlook on hardship and their subjective interpretations when challenged by ongoing adversity. Explicit social support involves practical support strategies,

with examples that include providing someone with food, looking after children and helping with practical chores, all of which play a role in uplifting morale and contributing to people's ability to cope with day-to-day responsibilities (Constantine & Sue, 2006; de Gouveia & Ebersöhn, 2019).

RRR emphasises the importance of connection, support-seeking, and interpersonal interactions. "The interconnected web of social resources promises benefits of socio-cultural beliefs and structures and implies resilience-enabling inclusion and access to social resources. Living on the outside of such SC excludes individuals, families and communities from being benefitting from social support" (Ebersöhn et al., 2020, p. 5). The hypothesis proposed in chapter 1 proposes that meaningful teacher relationships will matter for teachers' personal and professional well-being and will be useful in establishing and maintaining supportive initiatives in a school community. Leveraging a socio-ecological transactional position (Ungar, 2012), the Isithebe proposition is that SC constitutes the degree to which teachers can buffer against isolation by capitalising on relationships with people around them (co-workers, learners, school management, family, community, and the broader social context).

2.7 Conclusion

In this chapter, I contemplated existing knowledge on TR and SC across global and challenged educational contexts. The chapter commenced with a review of the effects of globalisation and postcolonial factors on education systems. This review included the inherent structural challenges and marginalisation associated with Global South countries, with a specific focus on South Africa. The deep fractures of race and class make most of South Africa's population victims of poverty and inequality. These challenged educational contexts are characterised by unequal resource distribution and the marginalisation of indigenous knowledge systems, which influence teachers through policy implementation and service delivery (Ebersöhn & Loots, 2017; Ebersöhn, 2019).

After discussing the educational challenges of Global South countries (with a specific focus on South Africa), the literature review explored constraints and enablers to TR across global and challenged contexts. Irrespective of context, s*ystemic constraints* include poor classroom management, meeting the needs of disadvantaged learners, lack of resources, lack of community support, limited parental involvement, poor PD prospects, and unsupportive leadership staff educational policies that impact heavy workloads and lack of resources.

Systemic enablers include supportive personal and school contexts such as strong relationships with learners and co-workers, positive feedback from parents and pupils and effective leadership by school principals. Irrespective of context, certain teachers' resources in the microsystem (optimism, perseverance, motivation, adaptive coping strategies that

involve problem-solving and relational support, a sense of moral purpose and vocation [e.g. making a difference], intrinsic value with regard to enjoying work as a teacher and self-care [e.g. exercise and healthy habits]) enable teachers to resile. In challenged contexts, teacher resilience is supported when, in available exo- and macrosystems, resources are mobilised for health and welfare support, school safety and stability, and access to infrastructure and services that support education and development.

Although some South African studies have explored personal and contextual protective resources and pathways that promote TR, it thus appears that there is still the need for further research in this area to enable TR in the South African education context. After this discussion on TR, the literature review explored international and national research on SC. What features most prominently in literature for the relevance of SC for TR is the collaborative power of professional networks that allow the attainment of emotional and intellectual resources, information, and social allies that buffer against the strenuous effects of structural disparity. TR has highlighted the importance of contextual resources surrounding teachers, specifically, an external support system constituting peers, co-workers and community resources for TR (Castro et al., 2010; Gu, 2018; Le Cornu, 2013). In a South African context, teacher agency is explained as an outcome of collectivist coping requiring teachers to identify, access and mobilise obtainable resources for social support.

The chapter concludes with a conceptual framework that proposes SC as a pathway to TR. In this pathway, constraints are mediated when teachers use their social connectedness with each other within the same school, with teachers in other schools, and other people in the school community (parents, learners, leadership) as a pathway to enable them to resile. RRR proposes that people adapt by sharing social resources and cultivating a culture of care and kinship in the prolonged absence of systemic structural support. A resilience lens in a Global South context may lead to positive educational outcomes, given inequality (Ebersöhn, 2017). In Chapter 3, the choice of research methodology and strategies applied in my study is motivated.

3 Chapter Three: Research Methodology

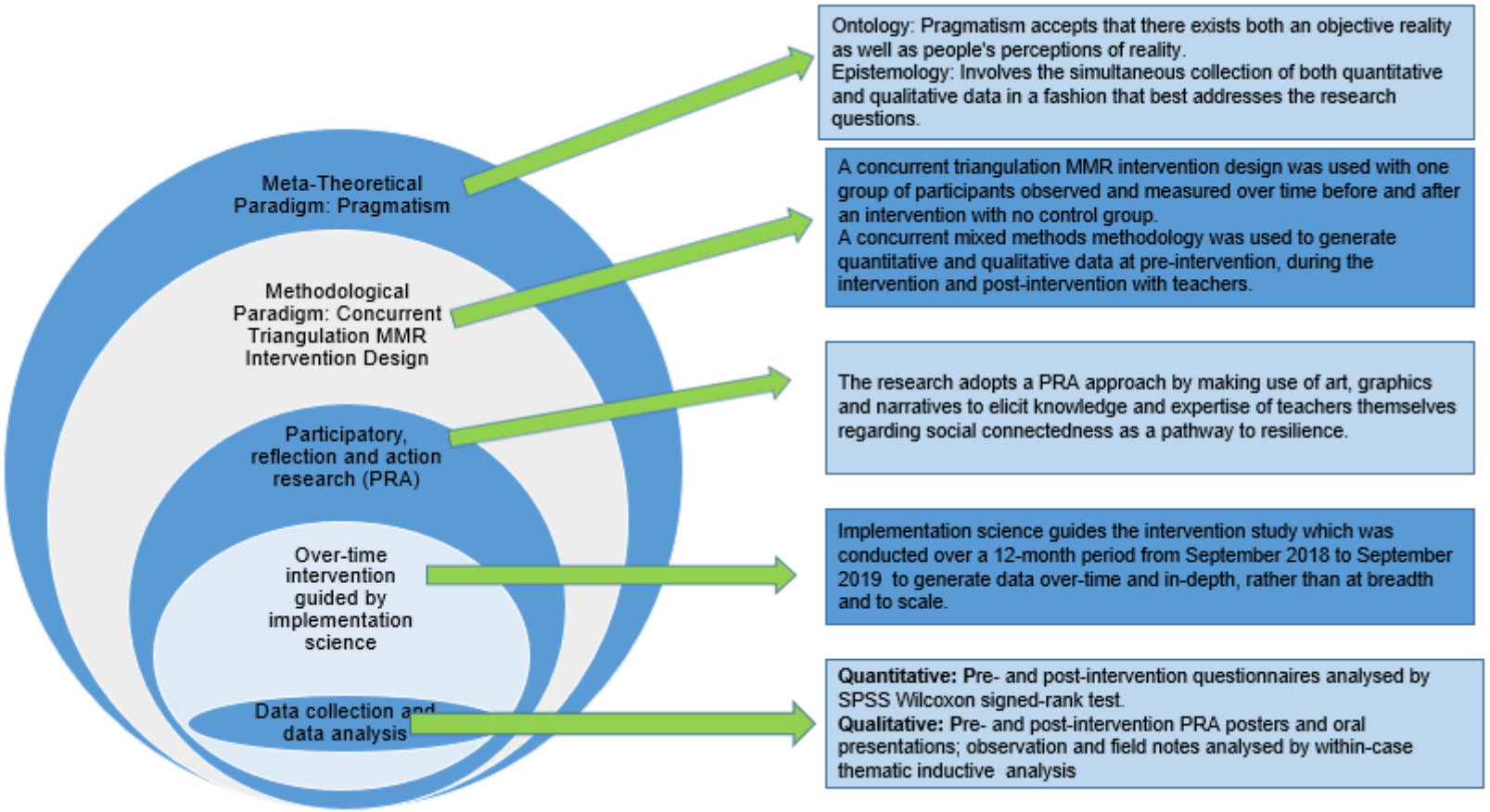
3.1 Introduction

This chapter outlines the research methodology used to address the PRQ in the study, "How can an SC intervention with teachers in peri-urban primary schools in a challenged educational context inform knowledge on TR?"

I explored how an SC intervention may inform knowledge of TR in a challenged educational context. I employed a concurrent triangulation MMR intervention design (non-experimental) with PRA principles directing the design. The outline of this chapter follows the sequence of Saunders and Tosey's (2013) "onion framework" depicted in Figure 3.1.

Figure 3.1

"*Onion Framework" Overview of Research Methodology*



The first (and outermost) layer refers to the research philosophy (pragmatism) discussed in Section 1.7.2. I adopted an abductive approach, which pursues a pragmatist perspective to understand reality. With the abductive approach, the research process starts with noteworthy hypotheses and is then devoted to their explanation (Mitchell, 2018). The next layer refers to the methodological choice (a concurrent triangulation MMR intervention design) discussed in Section 1.7.3 in Chapter 1. Section 3.2 discusses the next layer of the "research onion" by outlining the intervention research design (Section 3.2.2 details the use of a non-experimental pre- and post-design, and Section 3.2.3 outlines the motivation for using implementation science and PRA principles to guide the intervention development.) Section 3.3 outlines implementing the Isithebe intervention process over time guided by implementation science. Section 3.4 discusses the selection of schools and teacher participants. Section 3.5 discusses quantitative data collection and analysis, and Section 3.6 discusses qualitative data collection and analysis. I conclude the chapter by integrating MMR quality indicators (Section 3.7), which includes discussions on legitimation in MMR (Section 3.7.2), quantitative standards of rigour (Section 3.7.3) and the quality criteria used for the qualitative rigour and trustworthiness of my study (Section 3.7.4). An overview of key aspects of the methodology employed in my study is provided in Table 3.1.

Table 3.1

Outline of the Research Methodology and Process

Paradigmatic assumptions	
Meta-theoretical paradigm	Pragmatism (discussed in Section 1.7.2)
Methodological paradigm	Concurrent triangulation MMR (discussed in Section 1.7.3)
Research design: Intervention study (non-experimental, pre- and post-test)	
Selection of schools (*n* = 6)	Purposive sampling of primary schools signifying a challenged context: • Inclusion criteria: Challenged educational contexts–Quintile 3 (no school fees charged); primary schools situated within an urban space in the Nelson Mandela Metropol. • Exclusion criteria: "secondary schools, rural and peri-urban schools, schools in middle- and high-income spaces" (Ebersöhn et al., 2020, p. 10) in the same urban area.
Selection of participants (*n* = 36, M = 2, F = 34)	Convenience sampling of teachers: • Inclusion criteria:

	Teachers in the sampled primary schools: availability and willingness to participate in the intervention study. • Exclusion criteria: teachers in the sampled primary schools: unavailable or unwilling to participate in the intervention study.
Data generation	
Data collection techniques	Data documentation techniques
Quantitative survey data with teachers: Pre- and post-intervention TR (ENTRÉE) and SC (REPSSI) questionnaires	<u>Quantitative:</u> • Electronically captured individual teacher-completed questionnaires (self-administered) from selected items from TR ENTRÉE scale (see Appendix C). • Electronically captured individual teacher-completed questionnaires from selected items from the SC REPSSI scale (see Appendix D). • Demographic questionnaire (see Appendix E).
PRA data with teachers: Pre- process and post-intervention	<u>Qualitative:</u> • Textual data: Verbatim transcriptions of audio-recorded school-group presentations on PRA prompts; • Observation data: Field notes and researcher journal on PRA-process (see Appendix G). • Visual data: Photographs of PRA posters (see Appendix H);
Data analysis and interpretation	
Quantitative analysis: Nonparametric tests (e.g. WSR) and other statistical analysis.	*Qualitative analysis*: Within-case and cross-case thematic inductive analysis of PRA-textual, visual and observation data.
Standards of rigour and quality criteria	
Quantitative rigour: Reliability and validity of TR (ENTRÉE) and SC (REPSSI) questionnaires.	*Qualitative rigour*: Credibility: Multiple data sources were used and documented (visual data of PRA-group posters (see Appendix H); verbatim transcriptions of audio recorded presentations by teacher-groups on PRA-prompts (see Section 3.6.3.4 for PRA-prompts); and research journal of field notes taken during intervention sessions (see Appendix G). Transferability: findings limited to (i) educational contexts "characterised by similar structural disparity challenges, (ii) primary schools, (iii) mostly female teacher" (Ebersöhn et al., 2020, p. 1) aged around 50 years of age with around 19 years teaching experience on average, and (iv) tertiary teaching qualifications.

	Dependability: researcher reflexivity and multiple data sources - documented in research journal (see Appendix G); Confirmability: Researcher reflexivity and audit trial of research visits (refer to the research journal, Appendix G and the research visit schedule Appendix F).

3.2 Research Design: Intervention Study

3.2.1 Introduction

School-based interventions are intentional and planned strategies to change or introduce evidence-based practices to positively impact social and emotional outcomes (Century & Cassata, 2016). Intervention research is especially beneficial in challenged educational contexts since school-based intervention benefits both researchers and teachers. Knowledge is generated in a collaborative process, and teachers can gain immediate potential benefits from participating in the intervention (Ebersöhn et al., 2015). According to Ebersöhn and Ferreira (2012), teachers at low-resource schools were more likely to implement and continue participation in an intervention over time to demonstrate comparable effects. Additionally, there is an agreement that successful implementation of school-based interventions happens in stages over time, and it cannot be a single event (Albers & Pattuwage, 2017; Duda & Wilson, 2015). Section 3.2.2 discusses the advantages and limitations of using a non-experimental pre- and post-intervention research design.

Effective school-based implementation requires considerable time, money, and human resources (Murphy, 2015). Additionally, school intervention research has become increasingly more difficult and more important as teachers struggle with fewer resources and researchers struggle with intervening effectively in a given context (Greene, 2015; Murphy, 2015). My study's debate on school-based research holds that finding "what works" is subjective, and the methodological approaches, theories, measures, evidence, and the context must be considered. (Greene, 2015; Murphy, 2015). Thus, as implementation science focuses on evaluating the implementation process and the intended outcomes of the intervention, it allows for the incorporation of numerous theories and methods (Mitchell, 2011) and is well suited to the research objectives of knowledge generation in challenged educational contexts. Section 3.2.3 considers the reasons for using implementation science to guide the development and evaluation of an intervention in my study.

3.2.2 Intervention Research: Non-Experimental Pre- and Post-Test

Randomised control trials are unlikely in high-risk school settings, as interventions require both flexibility to respond to crises and time to implement (Ebersöhn, 2015). Interventions in schools that tend to be implemented in a short-term and isolated manner can negatively influence

effectiveness and sustainability (Domitrovich et al., 2010). In a review of school-based interventions, Ungar et al. (2014) found that school-based interventions that did not include a cultural or contextual component showed limited effectiveness. They suggest that a locally developed programme could have better accounted for cultural differences. It follows that school-based intervention research has to include the dynamic and complex process of implementation where contextual factors are considered, especially when “exporting” research to developing countries (Century & Cassata, 2016; Ebersöhn, 2015).

I followed a non-experimental pre-post design (Gravetter & Forzano, 2018). One group of participants (in this case, participating teachers from the six schools) was observed and measured over time before and after an intervention with no control group (Gravetter & Forzano, 2018). The predominance of non-experimental designs is often attributed to researchers' difficulties in implementing pure experimental designs (Creswell, 2014). A delayed intervention model (Gravetter & Forzano, 2018) was planned, with at least one of the schools opting to serve as a control school. However, during the initial September 2018 PRA consultation meetings with teachers from selected schools, none of the schools opted for a delayed intervention model (meaning there were no control schools). Consequently, there are no comparative results on TR and SC in the absence of the intervention with teachers.

An advantage of using a non-experimental pre-post design included the convenience of finding appropriate participants at a given time or place, making the sampling process quicker and easier (Cohen et al., 2018). However, a disadvantage of the non-experimental pre-post design is a higher possibility of researcher bias due to selecting participants whose responses could lead my study in a certain direction (Creswell, 2014). During data collection, thoughtful reflection about the context, the participants, and the data collection fostered insights that contributed to the rigour of my study (Maree & Pietersen, 2019), which was discussed in Section 1.10.

3.2.3 Implementation Science and Intervention Research

Implementation science is the research of “purposive change in practice” (Fraser & Galinsky, 2010), which “has progressed towards increased use of theoretical approaches to provide better understanding and explanation of how and why implementation succeeds or fails” (Nilsen, 2015, p. 1). Implementation science arose from a desire to overcome the difficulties of putting evidence-based research into practice, notably in education. (Dyssegaard et al., 2017; Nilsen, 2015). Implementation science in education research is broadly defined as putting evidence-based research into practice (Dunst et al., 2013; Harvey & Kitson, 2015). Implementation science allows for an “integrated model of implementation that includes the intervention, participants, context and the relationship between these elements as they

address individual and contextual factors to achieve the intended and sustainable outcome" (Leask, 2019, p. 49).

Indigenous knowledge and participation play an important role in the planning and implementation of social support and development (Bar-On & Prinsen, 1999; Busza, 2004; Ebersöhn et al., 2019). Implementation science maintains that a systematic approach is needed to develop and cultivate a learning culture for educational interventions to be successful. Such an approach will lead to school environments conducive to teaching and learning and contribute to supportive communities for all relevant stakeholders (World Bank, 2018; OECD, 2017). Furthermore, through insight into the reasons why implementation succeeds or fails in a specific environment, implementation science provides a bridge between the implementation requirements and the complex and dynamic nature of the practice (Humphrey et al., 2016). Additionally, implementation science is "aligned with Bronfenbrenner's bioecological model to understand what creates an enabling context for intervention implementation" (Leask, 2019, p. 22).

To accurately understand an intervention, including its active ingredients and chances of success, researchers must look into the whole experience of the participants (i.e., learners, teachers, administrators, and other school partners) (Greene, 2015). Methodologically, one of the challenges intervention research faces is integrating intervention development with intervention evaluation, requiring the researcher to become closely involved in the intervention design (Fraser & Galinsky, 2010). As a result of this involvement, better measurement and more precisely defined programs are achieved. Despite these advantages, the researcher's engagement generates a vested interest in seeing positive evaluation results, thus creating a conflict of interest. Professional norms of conduct are especially vital in this situation. Researchers are expected to collect and analyse data using scientific methodologies and approach the evaluation process with honesty and scientific rigour (Fraser et al., 2009). Refer to Sections 3.7 and 3.8 for details on scientific rigour and quality criteria employed in my study.

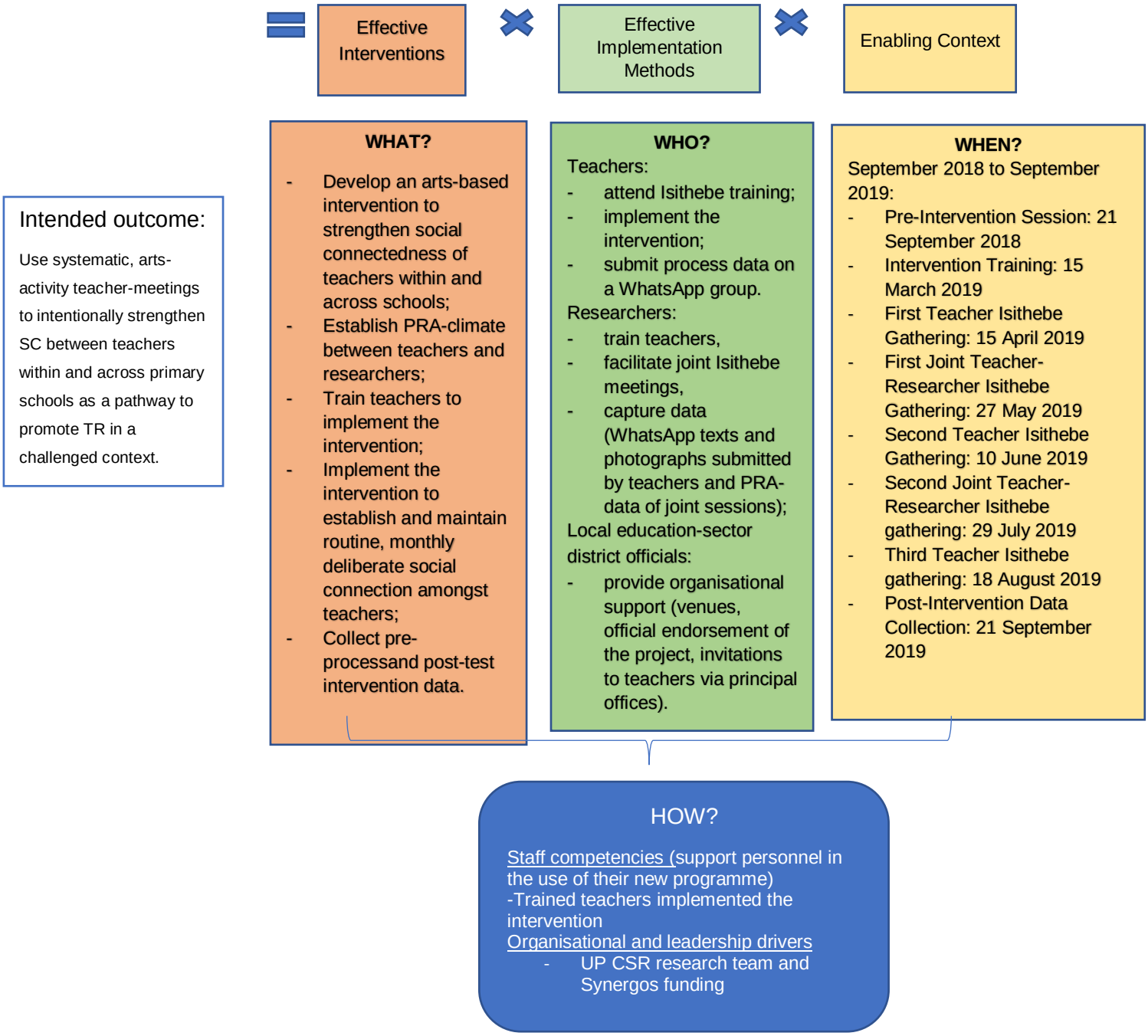
3.3 The Isithebe SC Intervention Development and Implementation Process

3.3.1 Introduction

The following section details the development and evaluation of the Isithebe SC intervention and needs to be read in conjunction with Appendix A. As argued in Section 3.2.3, implementation science is a useful model representing a changing, multifaceted process of conveying knowledge between the participants, researcher and context during the implementation phase at different times (Century & Cassata, 2016; Dyssegaard et al., 2017).The implementation process by Duda and Wilson's (2015) presentation of the implementation process is depicted in Figure 3.2 as an integrated formula for the active implementation of the longitudinal Isithebe SC intervention.

Figure 3.2

Integrated Implementation Process for the Isithebe SC Intervention



3.3.2 The "What" that Ensures an Effective Intervention

The objectives of the Isithebe SC intervention included developing an arts-based intervention to strengthen the SC of teachers within and across schools. A PRA climate was established between teachers and researchers where teachers were trained to implement the intervention

to facilitate the intervention. PRA brings research and action together by allowing communities to exchange and act together with the help of outside resources to enrich their lives. Within the asset-based theory, PRA provides tools for academics to know micro-realities. As a result, PRA necessitates a transition in the researcher's role from that of an expert outsider to that of a non-expert whose goal is to mobilise the expertise of others (Chambers, 2004; Ferreira, 2006).

Many unique difficulties in effectively implementing school-based interventions have been identified, including structural barriers and practical and methodological challenges in conducting and evaluating such programs (Durlak & DuPre, 2008; Ebersöhn et al., 2015). Ebersöhn and Ferreira (2012) found that the intensity of adversity and resource constraints in challenged educational contexts created barriers to implementing policy that guides school-based interventions. School cultures that focus on asset-based approaches to achieve intervention implementation facilitate more successful interventions than cultures that do not support participative and collaborative decision-making (Walton, 2015; Zimmerman, 2017).

In March 2019, the researchers conducted a 6-hour intervention training session with thirty teachers from all six schools (explained in Section 3.3.3.3). The training aimed to establish and maintain routines and monthly deliberate social connections amongst teachers. Over the next six months, there were six intervention sessions lasting approximately two hours each. These meetings are discussed in Sections 3.3.3.5 to 3.3.3.9. The pre-intervention Isithebe assessment (QUAN+QUAL TR and SC measures) took place in September 2018 (explained in Section 3.3.3.2), and the post-intervention assessment took place in September 2019 (explained in Section 3.3.3.4)

3.3.3 The “Who”: Intervention Implementers

The intervention implementers “are the people who are directly involved in the implementation process to ensure that the intervention is implemented as intended to achieve the desired outcomes” (Leask, 2019, p. 81). The research implementers included the researchers, the teachers, and the local education-sector district officials who partnered to develop the Isithebe intervention. As the research followed PRA principles, it involved interacting with local people to understand and learn from them by seeking out their points of view to use such learning experiences. PRA creates opportunities for community development and the scientific study of issues affecting the lives of people in communities (Ferreira et al., 2013). Trained teachers implemented the Isithebe intervention. The research team trained the teachers to facilitate joint Isithebe arts activities, capture data through WhatsApp texts and photographs submitted by teachers, and PRA data from joint sessions. The data collection used art, graphics and narratives to elicit knowledge and expertise from teachers themselves regarding SC as a pathway to resilience (Chambers, 2008). The researchers’ role was to facilitate teacher

training and joint Isithebe meetings and capture data. Section 3.6.3.2 details the qualitative data collection process and PRA questions answered by teachers throughout various stages of the intervention. The local education-sector district officials' role was to provide organisational support by providing venues, official endorsement of the project and invitations to teachers via principal offices.

Teachers are likely to be resourceful and adaptive, whether in affluent or resource-scarce contexts (Ebersöhn, 2014). Therefore, teachers are important collaborators in school-based intervention studies (Ebersöhn, 2015). Teachers' morale is sometimes harmed by the enormous demands on them in South Africa, which inhibits them from volunteering for research investigations. Furthermore, the diversity of programs that rely on teachers to create a healthy school environment (Ebersöhn, 2015) demonstrates the necessity for intervention research to enhance school health and well-being. Individual and societal well-being strategies in education could include schools that foster community connections and environments that foster a sense of belonging and SC (Ebersöhn, 2017), hence focusing on establishing and maintaining a routine, coupled with monthly deliberate social connections amongst teachers.

3.3.4 The "When": Implementation Stages

3.3.4.1 Introduction

A plan that assists teachers in navigating the trip through the implementation stages must be designed to support effective transformation in schools. This plan should involve and support teachers in effectively implementing the new intervention in their educational settings (Duda & Wilson, 2015). In implementation science, the "When" stages comprise exploration, programme installation, initial implementation, full operation and sustainability (Duda & Wilson, 2015). To implement the intervention, the teachers in the schools scheduled three Isithebe forums at convenient schools to discuss the implementation of the intervention (April 2019, June 2019, and August 2019). At the intervention training in March 2019, researchers facilitated teacher roles for Isithebe gatherings (for example, one teacher had to buy the food, one teacher had to organise the venue, and one teacher had to keep the "Isithebe Kit"). The researchers scheduled two joint Isithebe forums at the EC DBE district office, involving teachers from all the schools, the researchers and DBE officials during May and July 2019. A WhatsApp group was established for teachers to connect and capture teacher gatherings and activities where researchers were not present. Refer to Appendix F for the research visit schedule that details dates of visits, the purpose of visit, participants involved, time in the field, data collection method and data source documented. Sections 3.4.4.5 to 3.4.4.9 report on the monthly SC meetings from April 2019 to August 2019.

3.3.4.2 Pre-Intervention Session: 21 September 2018

Thirty-six teachers from six different primary schools participated in the pre-intervention session. During September 2018, the baseline data, including the QUAN+QUAL quantities (see Section 3.6) and demographic questionnaires (see Appendix E) were collected. The demographic questionnaire included teachers' age, home language, grade and subject taught, and years of experience. The teachers created the qualitative data during the pre-intervention interaction, (see Photographs 8 to 13). Irrespective of the effectiveness of an intervention, the adoption and success of the intervention are influenced by a teacher's perceptions of the intervention and how overwhelming it will all be (Cowan & Maxwell, 2015; Domitrovich et al., 2008). A teacher's willingness to adopt an intervention is influenced by the additional paperwork and time required to implement it (Cowan & Maxwell, 2015). Very complex interventions that are inconsistent and create confusion are unlikely to be adopted and implemented easily in practice; therefore, interventions must be flexible, easy to implement and compatible with the teachers' instructional practices (Cowan & Maxwell, 2015; Durlak & DuPre, 2008).

Figure 3.3

Photographs 8-13: Qualitative data generation during the pre-intervention session

Photographs by the researcher with consent from the participants

3.3.4.3 Intervention Training: 15 March 2019

Thirty teachers participated in Isithebe training – see Photographs 18 to 23. The attrition between the pre-intervention phase could result from teachers being unavailable for the intervention training due to other responsibilities or as a result of teachers not being interested in continuing to participate in the intervention. The intervention training was held for 6 hours on 15 March 2019. Teacher training is often the foundation for intervention implementation as it provides the initial instruction to deliver the core components of the intervention (Holmes et al., 2021). "The training objectives included: (i) a theoretical introduction to a need for evidence on teacher resilience, social connectedness and social isolation; (ii) an orientation to the 'Isithebe Kit', (iii) modelling an Isithebe gathering, (iv) consultation and consensus on meeting dates, and (v) schools tasking individual teachers with Isithebe roles and tasks" (Ebersöhn et al., 2020, p. 16).

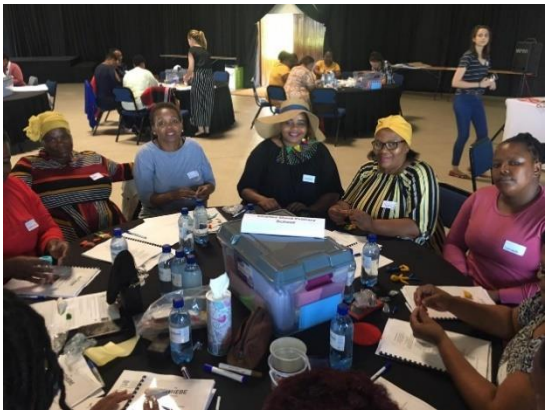
The intervention training was initiated by the teachers providing PRA-group presentations to demonstrate each domain's existing knowledge. Research findings substantiated that if participants view the training as successful, it could increase sustained implementation (Liebech-Lien, 2020). Active collaboration and establishing shared goals in the implementation process could contribute to a more positive attitude regarding intervention implementation (Dyssegaard et al., 2017; Liebech-Lien, 2020). An "Isithebe Kit" was issued to each school, containing

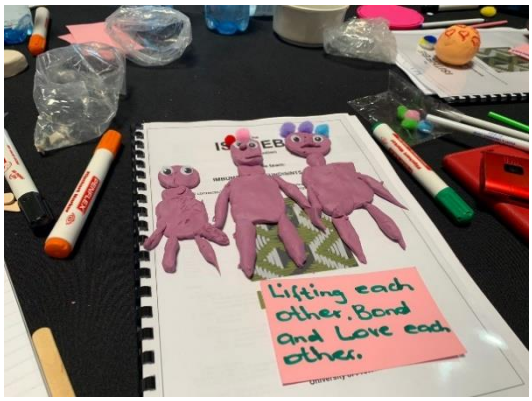
"The *Isithebe Social Connectedness Intervention Manual* (each teacher also received their own manual – this is an additional manual for the school);

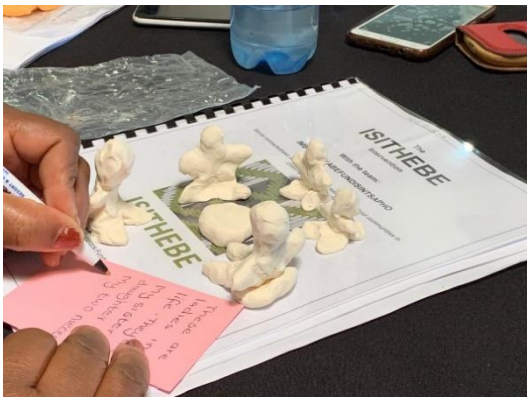
- Laminated sheet with dates for monthly Isithebe gatherings;
- Three activity packages with laminated instructions per activity; and
- 3 x Checkers R200.00 vouchers (total value of R600.00 per school). Thus R200.00 per Isithebe gathering to buy refreshments and snacks for the monthly Isithebe gatherings" (Ebersöhn et al., 2020, p. 9).

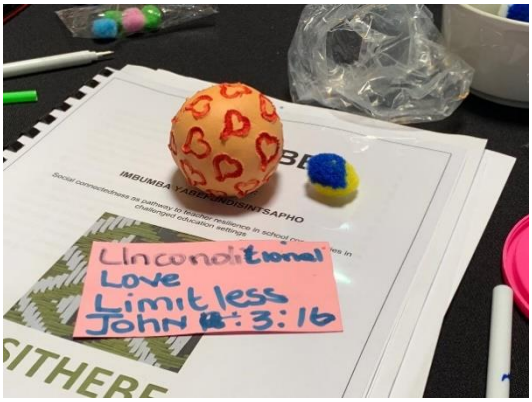
Figure 3.4

Photographs 18-23: Teachers engaged during the intervention training in March 2019












Photos by the researcher with permission from participants

3.3.4.4 Post-Intervention Data Collection: 21 September 2019

During the pre- and post-intervention stage, QUAN+QUAL data were collected – refer to Photographs 23 to 28. The researchers administered the same pre-intervention TR (ENTRÉE) and SC (REPSSI) questionnaires to teachers. Fifteen teachers attended a post-intervention session on 21 September 2019, where an additional seven questionnaires were collected via email (See Section 3.4). A teacher's willingness to commit to adopting an intervention is influenced by the difficulty level, and time it will take to implement it, as well as the complexity and amount of paperwork involved (Cowan & Maxwell, 2015; Kitson & Harvey, 2015). The attrition between completed pre- and post-test questionnaires could be a result of teachers perceiving the intervention as requiring extra work in their already busy schedules, not taking an interest in the intervention (Kitson & Harvey, 2015), or being unavailable on testing dates due to sickness or family responsibility.

Figure 3.5

Photographs 23-28: Isithebe Post-intervention data collection, September 2019






Photo by the researcher with permission from the participants

3.3.4.5 First Teacher Isithebe Gathering: 15 April 2019 (Relationship Voucher Box)

Teachers decorated boxes with “Isithebe Kit” craft materials and glue from the specified activity package. Teachers then chose relationship vouchers to put in their own boxes. Teachers could then choose three vouchers and implement one relationship-building strategy per week (as shown in Photograph 32). Photographs 29 to 35 show WhatsApp images teachers shared of this session.

Figure 3.6

Photographs 29-35: Teachers' WhatsApp images of the Relations Voucher Box session

Photos by the researcher with permission from the participants

3.3.4.6 First Joint Teacher-Researcher Isithebe Gathering: 27 May 2019 ("Friendship Survival Kit")

A total of 21 teachers participated in this joint session. The main event was a PRA session, but it was preceded by an ice-breaker where the "Friendship Survival Kit" (Photographs 35 to 38) was used. During this icebreaker, teachers received small tokens of appreciation, and per school-based group, they discussed the role(s) their co-workers and friends play in their lives. After the ice-breaker, teachers were asked to work in their groups to present posters. Each school presented their answer to teachers from all schools. Each group received a couple of blank posters and markers and was asked to consider the following questions:

- "How do these gatherings help you to be a teacher?" (Appendix G)
- "How do these gatherings help you with school projects?" (Appendix G)

Figure 3.7

Photographs 35-38: "Friendship Survival Kit" activity and process PRA-data generation

Photos by the researcher with permission from the participants

Note: Photos by the researcher with permission from the participants

During the ice-breaker "Friendship Survival Kit", teachers did not actively participate or seem very invested in the activity, compared to other hands-on activities they were involved in

previously. Teachers may have been less engaged in this activity because it did not need hands-on creation like the other Isithebe activities. “In the post-pilot revision of the manual, the Growing Together activity replaced the ‘Friendship Survival Kit’ as a means to use a hands-on experience to enable experiences of engagement that signify unity and dynamic growth when connected” (Ebersöhn et al., 2020, p. 20).

“For the ‘Growing Together’ activity, each teacher received an empty pot and craft materials (letters, beads, glitter, feathers, glue) to decorate the pot. Teachers were asked to use symbols of unity, togetherness, friendship in their designs” (Ebersöhn et al., 2020, p. 13). The teachers were given a succulent plant and potting soil to plant in their decorated pots once they finished decorating them[13]. After that, teachers could discuss the value of SC and either keep the pot plant or give it to a friend.

3.3.4.7 Second Teacher Isithebe Gathering: 10 June 2019 (Teacher Circle Recipe Book)

During this session, teachers used the “Isithebe Kit” craft materials to decorate the outside of blank exercise books (see Photographs 39 to 43). They were asked to write down their favourite recipes in each other’s decorated recipe books.

Figure 3.8

Photographs 39-43: Teachers’ WhatsApp images of the Teacher Circle Recipe book session



[13] Succulent plants are experts at absorbing, holding, and utilising water efficiently. This unique trait has allowed them to thrive in even the most arid and water-scarce regions of the globe. These hardy plants serve as a reminder that even the most trying situations can be overcome when grown in a communal setting.

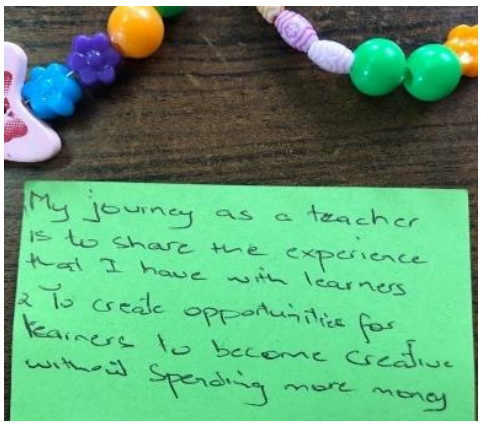
Photos by the researcher with permission from the participants

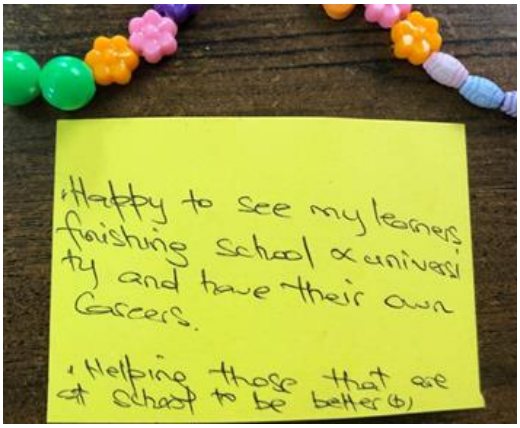
3.3.4.8 Second Joint Teacher-Researcher Isithebe gathering: 29 July 2019 (Teacher Journey Bracelets)

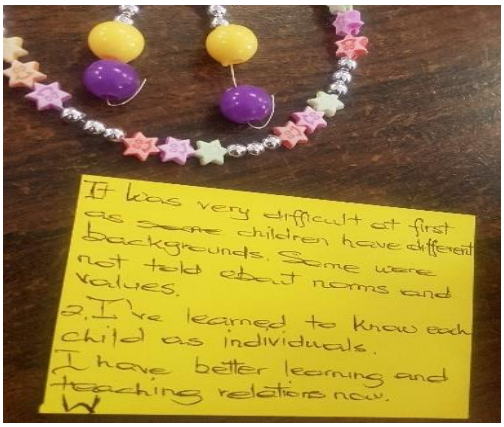
Thirty teachers participated in the second joint Isithebe intervention session (Photographs 39 to 51) and created bracelets or other jewellery pieces to represent their journey as teachers as part of the ice-breaker art activity. A bag containing a variety of beads, scissors, string and cardboard was given to each teacher. On a piece of cardboard, teachers penned brief accounts of their teacher journeys.

Figure 3.9

Photographs 39-51: Bracelet activity during the second joint Isithebe intervention session







Photos by the researcher with permission from the participants

3.3.4.9 Third Teacher Isithebe Gathering: 18 August 2019 (Framing Important Teacher Relationships)

Each teacher was given a blank photo frame and craft materials and instructions on embellishing it. Teachers then inserted images of people they have a close relationship with into the designed frames and spoke about the significance of this relationship to their co-workers (see Photographs 52 to 57).

Figure 3.10

Photographs 52-57: Teachers' WhatsApp images of the Important Relationship Frames session

Photos by the researcher with permission from the participants

3.3.5 The "How": Support System

The implementation drivers, which specify a set of three factors required for successful implementation, establish the "how" in implementation science. Staff competencies (support personnel in the use of their new programme), organisational drivers (the school, its geographic location, and resources), and leadership drivers (recognition of the importance of leaders and organisational drivers) are some of these factors (Duda & Wilson, 2015). Drivers are geared toward asking how a structure that will support and sustain these programs and practices be built at this stage (Wilson & Duda, 2015).

In a post-colonial educational context, universities have been urged to become active partners with communities (Mlachila & Moeletsi, 2019). By developing a sense of social responsibility through community engagement, South African educational policy creates the groundwork for making community engagement a priority (Ebersöhn et al., 2015). The intervention phase was guided methodologically by PRA principles and situated theoretically within an RRR framework. For this reason, the researchers partnered with the teachers in developing the intervention. PRA integrates research and action by allowing communities to share and act together with external help to enrich and improve their lives. Within the asset-based theory, PRA provides ways for researchers to grasp micro-realities (Ferreira et al., 2013). Therefore, PRA requires a shift from the researcher as an outsider who has expert knowledge to a non-expert whose role is to mobilise the expertise of others (Chambers, 2004; Ferreira, 2006). Ecological perspectives on resilience emphasise the potential of individual and community resources (Ferreira et al., 2013). Applying PRA principles enable researchers to co-facilitate change in partnership with teachers by evoking agency instead of “solving problems” (Ferreira et al., 2013). Thus, PRA also supports the asset-based approach's main principles: to empower individuals and communities to generate positive and impactful change from within (Ebersöhn et al., 2015).

Support staff for the intervention comprised the participating teachers across the six sampled schools. The organisational and leadership drivers included the six participating schools and the resources provided by the research team from the CSR. The Synergos Institute played a vital role in funding the Isithebe intervention. Their funding covered the cost of flights and accommodation to the EC, stationery and gifts for the research participants, funding for drinks and refreshments for all Isithebe gatherings, and material costs for the “Isithebe Kits”.

3.4 Selection of Schools and Teacher Participants

3.4.1 Introduction

The sampling section discusses the non-probability sampling of schools and participants. For my study, purposive sampling was applied at the school level, whereas convenience sampling was applied to select participating teachers within schools. Section 3.4.2 discusses using purposive sampling to select schools situated within a challenged educational context and the advantages and limitations of the selection process. Section 3.4.3 discusses using convenience sampling to select teachers from each of the six schools that participated in my study and the advantages and limitations of the selection process.

3.4.2 Purposive Sampling of Schools

Six public peri-urban primary schools in the Nelson Mandela Metropole, EC, were purposively sampled as having characteristics of schools in challenged socio-economic contexts in South Africa. Challenged educational contexts are characterised by factors such as inadequate healthcare, poverty and unemployment, and a lack of basic infrastructure (StatsSA, 2017a). Following intervention design principles, it was expected that at least one of the schools would opt out of the intervention phase and serve as a control group. However, this expectation wasn't realised and, accordingly, there were no control groups.

The peri-urban primary schools included in the sample are classified as Quintile 3 schools, indicating that no school fees may be charged. According to the South African Schools Act (RSA, 1996), the Minister of Education determines the funding provided to public schools based on a quintile ranking system (where Quintiles 1 to 3 schools are declared no-fee-paying schools). The Minister must provide the list of public schools that may not charge school fees annually by notices in a Government Gazette (RSA, 1996). The amount of funding is determined by the norms and standards of funding, which state the level of funding per learner (defined as a no-fee threshold) (RSA, 1996). These no-fee-paying schools are usually situated in contexts characterised by disadvantaged socioeconomic classes (determined by the level of education and household income) (Mattsson et al., 2017; RSA, 1996).

Furthermore, learner achievement in Quintile 4 (fee-paying schools with lower class sizes and lower LTRs, typically 25:1) is significantly higher compared to learners from Quintiles 1 to 3 (non-fee-paying schools with larger class sizes and higher LTRs, typically 42:1) (Ogbonnaya & Awuah, 2019). All schools have high LTRs, indicating the likelihood of large class sizes, as indicated by an annual Government Gazette published by the DoE (DoE, 2018). Inclusion indicators for my study included peri-urban primary schools situated within a challenged educational context that results in fewer opportunities due to resource constraints (Diale et al., 2014; Mattsson et al., 2017). "Excluded from this sample of South African schools are: secondary schools, rural and peri-urban schools, schools in middle and high-income spaces" (Ebersöhn et al., 2020, p. 9). Table 3.2 provides the characteristics of the six primary schools.

Table 3.2

Characteristics of the Six Primary Schools

School	Peri-urban or rural	Total number of learners	Total number of teachers	LTR
1	Peri-urban	796	22	36.2:1
2	Peri-urban	645	19	33.9:1
3	Peri-urban	977	26	37.6:1
4	Peri-urban	1489	39	38.2:1
5	Peri-urban	1416	36	39.3:1
6	Peri-urban	1061	27	39.3:1

Participating schools for my study were selected by purposive sampling, as my study formed part of a long-term and ongoing collaborative partnership established between the CSR at the UP and the six participating urban schools from the Nelson Mandela Metropole, EC. Purposive sampling was used to select schools to gather data relevant to the RQs (Maree & Pietersen, 2019). In this way, purposive sampling offered the opportunity to select teachers who were willing and able to participate (which was specifically relevant for a commitment to the intervention and the time needed for investment) and also offered the opportunity to select schools that displayed characteristics that were relevant to the RQs (Cohen et al., 2018). Furthermore, purposive sampling recognises the potential for thorough investigations and allows for in-depth knowledge of the topic under inquiry to be gathered from relevant, competent individuals (Cohen et al., 2018).

3.4.3 Convenience Sampling of Teacher Participants

For the Isithebe study, teachers from each public peri-urban primary school were sampled using convenience sampling. Convenience sampling involves sampling participants based on availability, willingness, or proximity (Nieuwenhuis, 2019). Convenience sampling criteria to include teachers for the Isithebe study included the willingness of teachers in purposively sampled schools to participate (as participation was voluntary and informed consent was required) and the availability of teachers in each of the schools. Exclusion criteria included teachers who lacked English proficiency or were unavailable or unwilling to participate.

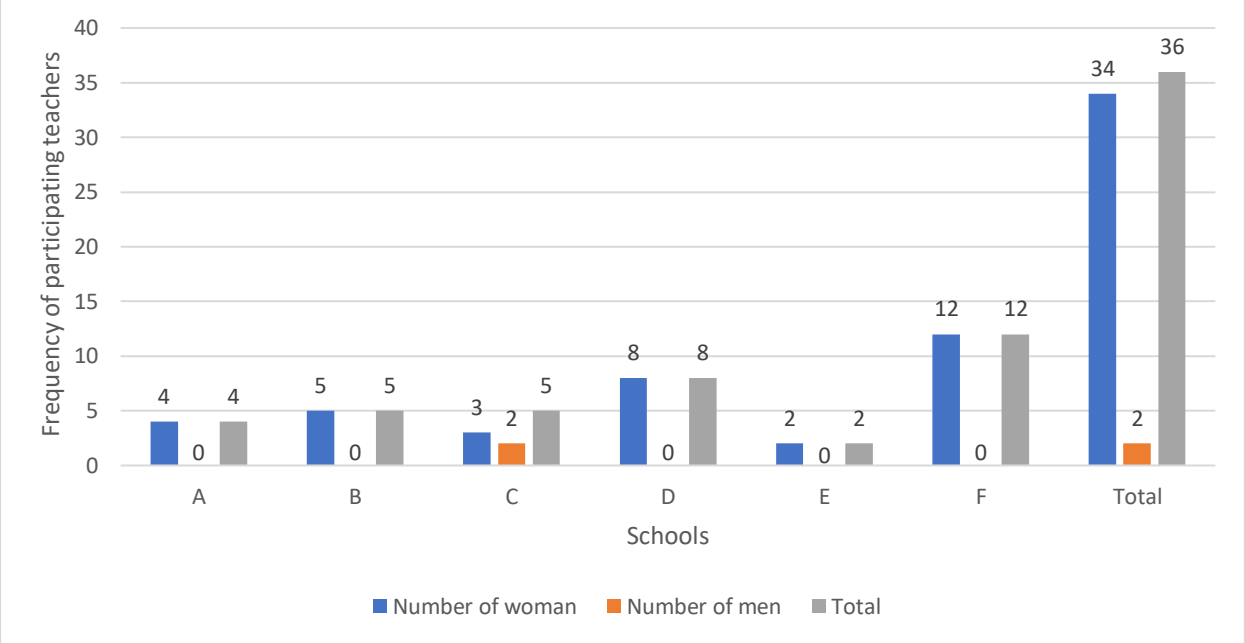
An advantage of non-probability convenience sampling is the convenience of finding appropriate participants at a given time or place, making the sampling process quicker and easier (Cohen et al., 2018). However, a disadvantage of non-probability convenience sampling is the possibility of researcher bias resulting from selecting participants whose responses will lead the study in a certain direction (Maree & Pietersen, 2019). As a result, it is necessary to use non-probability convenience sampling with discretion to avoid researcher

bias. To overcome the limitation of researcher bias, a DBE employee assisted with contact details of appropriate participants that the researcher did not know. I invited the principals and teachers in the chosen schools to participate in my study. At the September 2018 pre-intervention meeting, Fieldworkers explained the study's objectives and invited teachers to participate in the intervention meeting in September 2018. Only the teachers who were willing and able to participate were selected for the sample.

Figure 3.11 provides an overview of the gender distribution of the participants

Figure 3.11

Participating Teachers' Gender Distribution



Sampled teachers manually completed photocopies of quantitative questionnaires, informed consent forms, and demographic questionnaires (see Appendix E).

Table 3.3 provides an overview of the biographical details of the participants. The participants with stars next to their participant numbers indicate teachers present at both the pre-and post-intervention data collection. The Progress in International Reading Literacy Study (PIRLS) Literacy report paints a national picture of 45% of Grade 4 learners being taught mostly by teachers with Post-Secondary Education (this includes a Technikon Diploma and Post-Secondary Training) and another 30% of Grade 4 learners being taught by teachers with a B Ed degree. The sample in my study mirrors these patterns of teacher qualifications, with 29 of the 36 teachers in the sample having a Diploma in Education and seven teachers in the sample having a BEd degree (PIRLS, 2016).

From Table 3.3, it is clear that most participants were females over the age of 40, with the average age being 49.46 years (SD = 8.20), where SD denotes “standard deviation”. A weighted mean was used by executing the procedure described below.

The age categories on the demographic questionnaire were “less than 15 years”, “between 15 and 24 years”, and “more than 24 years”. For the calculation, the following categories were used: “1 to 15 years”, “16 to 24 years”, and “25 to 42 years”. The upper value in the last category equalled 42. Given the fact that teachers typically enter the teaching career at the age of 23 (in South Africa, high school is completed at the age of 18, and it takes four years to obtain a teaching diploma/degree), and the retirement age in South Africa is 65 years of age, the most years’ experience a South African teacher can have is 65-23=42 years. Using a weighted mean, the average years of teaching experience for the sample was 18.78 (SD = 9.10). The national age patterns of teachers in this sample reflect international patterns, with 42% of learners having very experienced teachers with 20 years or more experience. South Africa follows a similar pattern, with 40% of the teachers having 20 or more years of experience (PIRLS, 2016). Furthermore, the average teacher age for this sample was 49.46 years, which reflects both national and international patterns of an ageing teacher force with too few younger, qualified people entering the teaching profession (PIRLS, 2016).

Table 3.3

Demographic Details of the Participants

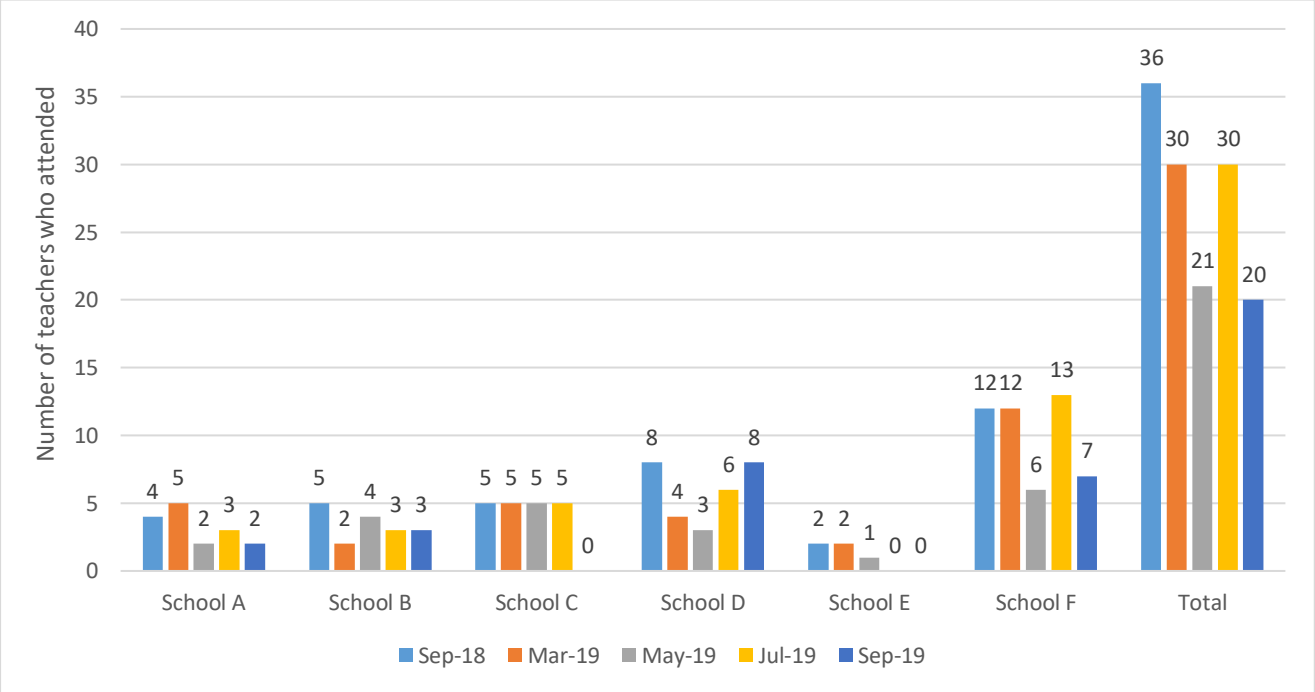
School	Teacher	Gender		Age	Home language		Grade teaching	Subjects teaching									Teaching duration		
		M	F		English	isiXhosa		English	isiXhosa	Life sciences	Mathematics	Life skills	Social Science and Technology	Junior phase subjects	Foundation phase subjects	Natural Science	Less than 15 years	15 – 24 years	More than 24 years
A	1*		√	58	√	√	7	√					√						√
	2*		√	50		√	4		√									√	
	3		√	57		√		√	√		√	√							√
	4		√	50		√		√	√		√	√						√	
B	5*		√	53		√		√	√		√	√						√	
	6		√	43		√													
	7*		√	53		√		√					√						√
	8		√	48		No info									√		√		
	9*		√	50		√		√	√	√	√							√	
C	10		√	38		√			√		√	√					√		
	11		√	54		√								√				√	
	12	√		50		√				√	√								√
	13		√	49		√		√	√		√	√						√	
	14	√		31		√			√								√		
D	15*		√	45		√			√	√							√		
	16*		√	47		√		√	√		√	√					√		
	17*		√	53		√		√	√		√	√							√
	18		√	No info		√									√				√
	19*		√	54		√						√	√						√
	20*		√	53		√		√	√		√	√					√		
	21*		√	60		√								√					√
	22		√	60		√						√	√						√
E	23		√	49		√									√		√		
	24		√	47		√		√	√	√	√	√	√					√	
F	25*		√	55		√		√									√		

School	Teacher	Gender		Age	Home language		Grade teaching	Subjects teaching									Teaching duration		
		M	F		English	isiXhosa		English	isiXhosa	Life sciences	Mathematics	Life skills	Social Science and Technology	Junior phase subjects	Foundation phase subjects	Natural Science	Less than 15 years	15 – 24 years	More than 24 years
	26		√	52		√						√					√		
	27		√	63		√		√											√
	28		√	46		√		√	√	√	√	√	√				√		
	29*		√	46		√			√		√	√						√	
	30		√	53		√									√		√		
	31*		√	54		√									√		√		
	32*		√	52		√									√		√		
	33*		√	55		√							√				√		
	34		√	23	√	√									√		√		
	35*		√	47		√		√			√	√					√		
	36*		√	33		√		√			√	√					√		

Thirty-six teachers were present at the pre-intervention data collection, 30 attended the intervention training, 21 attended the teacher-researcher meeting, 30 attended the second teacher-researcher meeting, and 20 teachers attended the post-intervention, with only 15 out of the 20 teachers being present who were also at the pre-intervention. Seven teachers sent post-test questionnaires via email, constituting 22 completed pre- and post-test questionnaires. Two teachers who were present at the pre-intervention data collection did not participate in the intervention, and five teachers who participated in the intervention were not present at the pre-intervention. Figure 3.12 provides an overview of teacher attendance throughout the intervention.

Figure 3.12

Teacher Attendance: Intervention Implementation



3.5 Quantitative Data Collection and Analysis

3.5.1 Introduction

For the quantitative component of my study, I administered two instruments. The first was the TR questionnaire which includes items from existing scales generated from the FIT-Choice scale (Watt & Richardson, 2007), the ENTRÉE project (Peixoto et al., 2018), BriTE project (Mansfield et al., 2015), the FIRE project, UP (Coetzee, 2013) and an assets-based model designed by Morgan (2011) (see Appendix C). The second quantitative instrument is the SC scale, which includes items from the OPHI (Zavaleta, 2017) and the REPPSI (Regional Psychosocial Support Initiative) scales REPPSI, 2016) (see Appendix D). The following section discusses motivation for selecting these scales.

3.5.2 The ENTRÉE TR Questionnaire

ENTRÉE is an instrument that consists of eight different scales relating to different domains of TR. The TR questionnaire includes items from seven scales with domains of "teacher professionalism (TR-Prof), teacher emotion (TR-Emot), teacher motivation (TR-Mot), teacher sense of coherence (TR-Soc), self-efficacy (denoted in the measure as Resilience [Res] and teacher efficacy (TeachEff)" (Ebersöhn et al., 2020, p. 10) and the contextual scale (Coetzee, 2013). The participants were invited to respond to the statements on a seven point Likert scale (ranging from 1 = "Do not agree at all" to 7 = "Strongly agree"). They were also invited to indicate their confidence on a Likert-type scale (ranging from 1 = "Absolutely Not Confident" to 7 = "Strongly Confident").

"Central to teacher professionalism (TR-Prof) is the teachers' ability to set and define professional goals, and aspects such as commitment, organisational and teaching skills. Teacher emotion (TR-Emot) includes aspects essential to resilience, including humour, enjoyment, and emotional regulation" (Ebersöhn et al., 2020, p. 9). Teacher motivation (TR-Mot) combines factors such as optimism and intrinsic motivation (Peixoto et al., 2018; Watt & Richardson, 2007). Teachers' sense of coherence (TR-Soc) indicates the coping techniques teachers use to understand and manage difficult situations (Peixoto et al., 2018). Self-efficacy (also known as Resilience) and teacher efficacy are two efficacy domains (TeachEff). Self-efficacy refers to a teacher's ability to bounce back when confronted with difficulties and a collection of skills used to cope with adversity (Morgan, 2011; Peixoto et al., 2018). Teacher efficacy assesses their beliefs concerning their behaviour and ability in the teaching profession (Morgan, 2011; Peixoto et al., 2018). The interaction between contextual factors and teacher characteristics is critical in the working framework chosen to understand TR (Peixoto et al., 2018).

The TR questionnaire's contextual items assessed how teachers use contextual protective resources to adapt to and overcome difficult situations inherent in the teaching profession, such as large classrooms, lack of teaching and administration staff, discipline challenges and heavy workloads. These elements encompass both what may happen inside and outside school. TR has demonstrated that the level of support from school or government authorities, and encouragement from family members and co-workers (using other teachers as a collective problem-solving network), is critical (Coetzee, 2013). Accordingly, contextual items investigated these factors in the TR questionnaire. "Contextual items also measured factors that sustain teachers in their profession, such as showing empathy to or instilling hope in learners, having a sense of accomplishment in their work by employing problem-solving strategies, a positive attitude, and drawing from their spirituality" (Ebersöhn et al., 2020, p. 9).

3.5.3 The REPSSI SC Questionnaire

The REPSSI SC questionnaire is drawn from OPHI's operational definition of SC and assesses external and internal indicators of SC and isolation (Bandeira & Mazibuko, 2017; Zavaleta et al., 2014). OPHI's definition of SC emphasises the importance of relations, respect and freedom from humiliation, especially in resource-constrained settings (OPHI, 2020). This definition is based on the literature on social capital, social cohesion, social exclusion and psychological theories of loneliness, including internal and external indicators of SC and isolation (Zavaleta et al., 2014). External indicators of SC refer to objective measures of an individual's social interactions, including frequency of social contact, social network support, reciprocity and volunteering. Internal indicators of SC refer to an individual's subjective perception of their own degree of interaction in the social environment, including satisfaction with social relations, the need for relatedness, a feeling of belonging to one's own neighbourhood, loneliness, and trust. For my study, Question 6 (Scale 1), Question 7 (Scale 2), Question 8 (Scale 3) and Question 9 (Scale 4), signifying internal SC, were selected and renamed as the following:

- Scale 1: "Building Relationships",
- Scale 2: "Need for Relatedness",
- Scale 3: "Belonging vs Loneliness/Isolation"
- Scale 4: "Trust".

OPHI's conceptualisation of SC builds on multidisciplinary work exploring external and internal aspects of SC and proposes a conceptual framework and a series of indicators to measure SC. To date, the technical quality of the REPSSI SC questionnaire in terms of reliability and validity has not been established. However, the conceptual scales provide a solid foundation for developing fundamental internationally comparable indicators that assess specific characteristics of SC and isolation (Zavaleta et al., 2014).

3.5.4 Quantitative Analysis

To address the SRQ1: "How do TR and SC compare pre- and post-intervention?", quantitative data were analysed using SPSS. Descriptive and inferential statistics were used to understand the population sample better and assess the frequency of replies to the Likert-scale questions (Field, 2018). Normality tests were conducted, and since it was found that the data deviated significantly from normality (Shapiro-Wilk [S-W] test p-values were less than 0.05), nonparametric tests were used. Specifically, the WSR test was used to establish differences between groups pre- and post-intervention (Field, 2018). A level of significance of 5% ($\alpha = 0.05$) was used for all statistical tests, indicating 95% confidence that differences between groups are not due to chance.

3.6 Qualitative Data Collection and Analysis

3.6.1 Introduction

PRA principles informed qualitative data generation. For my study, I generated qualitative data at various time points: pre-intervention (18 September 2018), post-intervention (21 September 2019), and process data (collected at joint teacher-researcher meetings that took place 27 May 2019 and 29 July 2019). Qualitative data sources can be collected in many forms – field notes, interview transcriptions, pictures and observations (Angrosino & Rosenberg, 2011; Nieuwenhuis, 2019). WhatsApp was used as a platform for teachers to capture and document teacher gatherings when researchers were not present. Pre- and post-intervention data and joint teacher-researcher Isithebe gatherings consisted of "(i) audio-recorded and verbatim transcribed oral school-group poster presentations, as well as (ii) observation and field notes (documented as both visual and textual data)" (Ebersöhn et al., 2020, p. 7). At pre-process and post-intervention teacher-researcher gatherings, teachers per school were grouped together and asked to plot their school answers on a poster and present it. Table 3.4 presents an overview of pre-process and post-PRA interview questions and documented data.

Table 3.4

Overview of Pre-, Process and Post-Intervention PRA RQs and Documented Data

Date of data collection	Interview questions guiding teacher poster presentations	Documented data source
18 September 2018 (pre-intervention) and 21 September 2019 (post-intervention)	"What does it mean to be a good teacher?" "What helps you continue being a teacher?" - asked at pre- and post-intervention. "Write down the relationships you have as a teacher in your school community." "Which relationships help you to be a good teacher?" (due to time constraints, only asked at post-intervention.)	Textual data: Verbatim transcriptions of audio-recorded school-group presentations on PRA prompts; Visual data: Photographs of PRA posters (see Appendix H); Observation data: Field notes and researcher journal on PRA-process (see Appendix G).
Joint teacher-researcher Isithebe gatherings: 27 May 2019 and 29 July 2019	"How do these gatherings help you to be a teacher?" "How do these gatherings help you with school projects?" (asked at May and July joint teacher-researcher meetings.)	Textual data: Verbatim transcriptions of audio-recorded school-group presentations on PRA prompts; Visual data: Photographs of PRA posters (see Appendix H).

3.6.2 Pre- and-Post Qualitative Data Generation

The pre-intervention Isithebe assessment qualitative TR and SC measures took place in September 2018 with 36 teachers. PRA school-group activities involved teachers working in groups (working together per school) to address questions and then present the PRA posters to the group.

At pre-and post-intervention time points, the following PRA prompts were posed to teachers per school:

1. "What does it mean to be a good teacher? What helps you continue being a teacher?" (Appendix G)
2. "Write down the relationships you have as a teacher in your school community? Which relationships help you to be a good teacher?" (Appendix G)

Due to time constraints during pre-intervention data collection, teachers could not respond to the second set of questions about relationships. Therefore, only process data and post-intervention data explore which relationships assist in being a good teacher. There were six school groups of teachers in the same venue. Teachers referred to their school groups, and upon agreement on an answer, each teacher group would plot their group's answer on a poster. Refer to Sections 3.4.2.1 to 3.4.2.3 for pictures of pre- and post-intervention poster presentation. Refer to Appendix G for pictures of PRA posters from all six schools at pre-and-post intervention data collection.

3.6.3 Qualitative process data

The following PRA questions served as prompts to school groups during joint school meetings in May 2019 and July 2019 and during the post-intervention session:

1. "How do these Isithebe gatherings help you to be a teacher?" (Appendix G)
2. "How do these Isithebe gatherings help you with school projects?" (Appendix G)

As with other PRA activities, teachers were consulted per school, wrote answers on posters and verbally reported their answers to other schools. The posters were photographed (see Appendix G), and the presentations were audio-recorded and transcribed verbatim.

Observation as a data collection technique supplemented the PRA qualitative data in my study. My chosen observation method was "observer as participant" (Nieuwenhuis, 2019, p. 91). As "observer as participant" (Nieuwenhuis, 2019, p. 91), I was involved in the intervention, but my primary role as an observer was to look for patterns, the intent of teachers and a more in-depth understanding of how they communicated with peers from the same schools and between teachers from different schools. I assumed a non-participatory, unstructured role as an observer as participant. My observations were documented as field notes in a reflective journal (see Appendix F) and photographs (as seen throughout this chapter).

One of the benefits of observation data is that the researcher can directly experience the interactions in the relevant social setting (Cohen et al., 2018). Such data allows a flexible approach ranging from unstructured to fully unstructured. The researcher can then assume different roles, from participatory to non-participatory (Creswell, 2014). Other benefits of the observational approach are the ability to explore collective cultural practices and obtain a comprehensive impression of the complex and diverse social contexts of people's lives (Bengry-Howell & Griffin, 2012.

A potential limitation of observation data is that the act of observation itself might bring about changes in participants' behaviour, rendering it somewhat atypical (Bengry-Howell & Griffin, 2012). The roles of and interaction between researchers and participants are not fixed but ever-developing (Råheim et al., 2016). At the beginning of the intervention, I felt the teachers were more comfortable with senior researchers they had worked with before on previous projects. In our first meeting, the teachers viewed me as an outsider. Throughout the intervention, I felt my relationship with the teachers deepen as they became more comfortable around me. The participants became more comfortable openly sharing their experiences and perspectives with me through this process.

Although observer bias is one of the main critiques of observational research, it is essential to recognise that no observation can be genuinely objective as it is a matter of interpersonal interaction in a situation where an objective hypothesis is being tested (Creswell, 2014). Phillippi and Lauderdale (2018) recommend that the researcher stay reflexive while observing and document the observations almost immediately while observations are still fresh in the researcher's memory. I attempted to be reflexive by constantly being aware of the aspects that could have affected the research process, documenting my observations accordingly.

Photographs 1 to 54 throughout Chapter 1 and Chapter 3 display the activities and participants involved throughout the intervention. The advantages of visual documentation as a data collection method include visually capturing specific moments that represent the participants' actions and behaviours (Ebersöhn & Eloff, 2007). The photographs aided me in capturing finer details regarding relationships and activities which otherwise could have been forgotten. Furthermore, the photographs enhanced the crystallisation of my study by demonstrating the process of research that was followed (Ebersöhn & Eloff, 2007). Visual data (photographs) serve the purpose of being an additional source of data to corroborate findings and therefore enhance the rigour of my study (Lune & Berg, 2017).

3.6.4 Qualitative Data Analysis

The qualitative data analysis involved within-case TA of PRA-related data (verbatim transcriptions of school poster presentations – see Appendix E- and visual data of PRA-posters – see Appendix F) to compare textual and visual data sources. TA finds reoccurring themes or phrases that convey essential meanings, allowing the researcher to delve further into the phenomenon of interest (Braun & Clarke, 2013). I followed the 6-step approach to a TA described by Braun and Clarke (2006). Firstly, I transcribed the data and familiarised myself with the transcriptions by reading through them several times. Secondly, I started jotting down some preliminary codes evident from the transcriptions. Thirdly, I classified the codes into themes, and fourthly, reviewed and refined the identified themes. Fifthly, I named the themes, and lastly, I compiled a report that included some extracts of the transcriptions as evidence of the identified themes.

In the first step, I had to capture and transcribe the poster presentations that took place during the various field visits verbatim. The verbatim transcripts were augmented by observations (recorded in my research journal and visual methodology). I used coding to identify major themes and categories that appeared in my data documentation's content (audio-recorded and verbatim transcribed focus groups, field notes, and visual data).

In the later steps, I gave meaning to my data during the data interpretation process by equating the processed data to current literature in the field. Through data interpretation process, I constructed interpretations to explore SC as a resilience-enabling pathway for teachers in challenged educational contexts. In this way, I added to and enlarged the field's existing body of knowledge. I interacted with the data and gained new insights and views based on discussions with my supervisors and co-researchers and ongoing questioning and reflections.

3.6.5 Integrated Data Analysis

I had to remain aware of how the data would meet the research purpose and how it would be used to address the RQs (Plano Clark & Ivankova, 2016). I concurrently collected the quantitative data (the TR/ENTRÉE scale and the REPSSI SC scale) and the qualitative data (PRA posters and presentations and observation of context). In basic concurrent MMR designs, three steps are followed in data analysis. Firstly, both QUAN+QUAL data are collected separately at roughly the same time. Secondly, neither quantitative nor qualitative data analysis builds on the other at the data analysis step. Finally, until both types of data have been collected and analysed separately, the results from each type of study are not integrated at the data interpretation step. Only after gathering and interpreting data from the QUAN+QUAL components is a meta-inference generated, which combines the conclusions reached from the various QUAN+QUAL data and findings (Gravetter & Forzano, 2018).

3.7 Integrated MMR Quality Indicators

3.7.1 Introduction

An MMR approach guided the non-experimental pre- and post-design. The problems of integration in MMR suggest the need to recognise that there might be legitimation issues that are not associated with mono-method designs (Perez, 2019). MMR require bilingual terminology that transcends the separate QUAN+QUAL orientations with the term "legitimation" that has become acceptable to both QUAN+QUAL investigators (Onwuegbuzie et al., 2011; Perez, 2019). Section 3.7.2 discusses legitimation for MMR relevant to my study. The challenge in ensuring quality in an MMR design is more significant because of the integration of the QUAN+QUAL results (Onwuegbuzie et al., 2011). Therefore, legitimation for MMR requires the researcher to explore "the extent to which all relevant research strategies are utilized so that the research can be considered high on the multiple relevant 'validities'" (Onwuegbuzie & Johnson, 2006, p. 59). Section 3.7.2 discusses the reliability and validity of quantitative measures, and Section 3.7.3 discusses the qualitative quality criteria.

3.7.2 Legitimation in MMR

Onwuegbuzie and Johnson (2006) give a taxonomy of nine categories of legitimation for MMR researchers to examine; these are: "sample integration, inside-outside, weakness minimization, sequential, conversion, paradigmatic mixing, commensurability, multiple validities, political" (Onwuegbuzie & Johnson, 2006, p. 57). Only relevant typologies for my study are discussed next. Sequential legitimation refers to potential problems when reversing the sequence of the QUAN+QUAL methods to generate meta-inferences (Onwuegbuzie & Johnson, 2006). As my study follows a concurrent MMR design, consideration of sequential legitimation is not necessary. Conversion legitimation refers to scrutinising inferences made after qualitising and/or quantitising the data, which is not addressed as my study makes inferences from separate quantitative and qualitative data and findings.

"Sample integration legitimation" entails constructing meta-conclusions by combining the inferences from the QUAN+QUAL phases employing the same participants in both the QUAN+QUAL components (Onwuegbuzie et al., 2011, p. 1265). My study's sample consisted of the same participants for both the QUAN+QUAL components, so the sample integration legitimation is high. Furthermore, only teachers who completed both pre- and post-intervention measures were used to compare TR and SC scores pre- and post-intervention.

"Inside-outside legitimation" refers to how properly the researcher portrays and reports on the insider's and observer's perspectives (Onwuegbuzie & Johnson, 2006, p. 58). When a researcher becomes ethnocentric or actively involved with the group they are studying, their capacity to be objective may be jeopardised (Perez, 2019). These conditions may pose a potential risk for me on both fronts. Firstly, I am a white female from a privileged position who

is conducting research with people from disadvantaged backgrounds. Secondly, as I adopted a PRA methodological approach to my study, I must be actively involved in the intervention. For this reason, it was particularly important for me to be reflexive throughout the research process. The term "reflexivity" refers to a critical examination of how a researcher derives information from the research process (Phillippi & Lauderdale, 2018). I tried to be reflexive by being aware of the things that could affect the research process and taking a step back to assess my role in the research process. Member checking or participation review is another essential approach for gaining a justified insider perspective (i.e., have participants check the transcriptions and assess my interpretations of it) (Onwuegbuzie & Johnson, 2006). By using member checking (Smit & Onwuegbuzie, 2018), I can validate the accuracy of my portrayal of the participants' perspectives. I double-checked and clarified their responses and subsequent study findings to ensure that my interpretations accurately portrayed the participants' opinions. I also tried to describe the participants' comments as accurately as possible.

"Weakness minimization legitimation" refers to the extent to which the researcher combines the strength of quantifiable data drawn from quantitative analyses (Onwuegbuzie & Johnson, 2006, p. 58), along with rich, detailed, contextual accounts of human experiences drawn from qualitative research (Perez, 2019). However, the important principle is that the researcher must carefully assess the extent to which the strengths of one approach can compensate for the weaknesses of the other approach. My study addresses this limitation by using internationally recognised research constructs to operationalise and measure TR and SC while incorporating qualitative research methods to account for the contextual nuances of research in a South African context.

"Paradigmatic mixing" refers to "the extent to which the researcher's epistemological, ontological, axiological, methodological, and rhetorical beliefs that underlie the QUAN+QUAL approaches are successfully (a) combined or (b) blended into a usable package" (Onwuegbuzie et al., 2011, p. 1256). Many objections to MMR are founded on the notion that QUAN+QUAL research methods cannot be combined in a single study because their ontological and epistemological foundations are incompatible (Perez, 2019). Pragmatism avoids concepts such as truth and reality. Instead, it takes on the view of an "experiential world with different elements or layers, some objective, some subjective, and some a mixture of the two" (Feilzer, 2020, p. 8). In pragmatism, truth as existing independently of people is regarded as impractical and unreal; therefore, the purpose of research is not to represent reality accurately but to provide useful knowledge (Lynam et al., 2020). Furthermore, by integrating QUAN+QUAL methods, research can "go beyond 'cause and effect' findings to better understand the 'why' and 'how'" (Leask, 2019, p. 15) SC can inform knowledge on TR within challenged educational contexts.

"Commensurability legitimation" refers to "[t]he extent to which the meta-inferences made reflect a mixed worldview based on the cognitive process of Gestalt switching and integration" (Onwuegbuzie & Johnson, 2006, p. 57). This viewpoint is meant to go beyond the information provided from either a solely quantitative or qualitative design and is developed through "empathy training" (Onwuegbuzie & Johnson, 2006, p. 59). During the data collection process, I combined both action and reflection techniques by using a reflective journal and remaining cognisant of the interpersonal skills that may have influenced how the data was collected or interpreted (Nieuwenhuis, 2019) through member checking and discussions with the supervisors and co-researchers.

"Political legitimation" refers to the difficulty in persuading the consumers of MMR (including stakeholders and policymakers) in valuing the "meta-inferences stemming from *both* the quantitative and qualitative components" (Onwuegbuzie & Johnson, 2006, p. 57). In traditional quantitative research, decision-making and power over the research process are entirely in the researcher's hands (Onwuegbuzie et al., 2011). In postmodern qualitative research, considerable power is placed with the research participants themselves, and the researcher takes the role of collaborator and facilitator (Phillippi & Lauderdale, 2018). As such, the research employs a PRA approach whereby researchers understand micro-realities within an asset-based theory and requires a shift from the researcher as an outsider who has expert knowledge to a non-expert whose role is to mobilise the expertise of others (Chambers, 2004).

"Multiple validities legitimation" refers to the extent to which all relevant research methodologies are employed, and the research can be judged to have a high level of "validity" (Onwuegbuzie & Johnson, 2006, p. 59). While dealing with the quantitative component's legitimacy, for example, the relevant quantitative validities are addressed and attained; when dealing with the qualitative component's legitimacy, the relevant qualitative "validities" are addressed and achieved (Onwuegbuzie et al., 2011).

Quantitative standards of rigour and qualitative quality criteria standards are considered next. Firstly, quantitative standards of rigour are discussed in Section 3.7.3, followed by a discussion on the quality criteria for qualitative research in Section 3.7.4.

3.7.3 Quantitative Standards of Rigour

3.7.3.1 Introduction

The following section details the standards of rigour for the quantitative research employed in my study. Sections 3.7.3.2 and 3.7.3.3 discuss the reliability and validity of the quantitative measures, respectively.

3.7.3.2 Reliability

Reliability refers to the consistency or dependability of a measure and the extent to which the same results are obtained if the study is repeated using the same sample (Heale & Twycross,

2015). The Entrée TR scale provides a good fit for measuring TR's conceptual and operational definitions (Mansfield et al., 2015). Peixoto et al. (2018) conducted a hierarchical regression analysis using the ENTRÉE project's model, with the global measure of resilience as the dependent variable and all other measures as independent variables. A “Confirmatory Factor Analysis” (CFA) corroborated the factor structures for all measurements (Orçan, 2018, p. 414). The CFA was conducted using the maximum likelihood estimator available in AMOS 24.0 (Arbuckle, 2016), where AMOS stands for “Analysis of Moment Structures” (Arbuckle, 2016, p. 1). The models’ goodness of fit was assessed using the “Comparative Fit Index” (CFI), “Tucker-Lewis Index” (TLI) and “root mean square error of approximation” (RMSEA) (Hu & Benter, 1999, p. 1), respectively. According to Hu and Bentler (1999), the CFI should exceed 0.9, the TLI should exceed 0.9, and the RMSEA should not exceed 0.08. “Confirmatory factor analyses were carried out for each measure separately showing an adequate fit to the data with CFI ranging from 0.935 to 0.999; TLI ranging from 0.922 to 0.99 and RMSEA ranging from 0.032 to 0.102” (Peixoto et al., 2018, p. 81).

The REPSSI SC scale is drawn from OPHI’s operational definitions of SC that assesses both external and internal indicators of SC and isolation (Bandeira & Mazibuko, 2017; Zavaleta et al., 2014). OPHI’s conceptualisation of SC builds on multidisciplinary work that explores external and internal aspects of SC and proposes a conceptual framework and a series of indicators to measure SC. As this questionnaire is unpublished and forms part of grey literature on the subject, the REPSSI does not yet have a published technical manual and has no established reliability or validity coefficients. For my study, reliability analysis was conducted using Cronbach’s alpha coefficients to establish whether the underlying variable structure of the SC REPSSI questionnaire is a consistent measure in the setting of South African peri-urban primary school teachers in challenged contexts (see Section 5.2.4).

3.7.3.3 Validity

Researchers must ensure that the numbers they employ to depict reality match the measured attributes. “Validity concerns what an instrument measures, and how well it does so” (Mohajan, 2017, p. 58); thus, it is the extent to which the results represent reality.

The TR questionnaires utilised in my study included items from existing scales from the FIT-Choice scale (Watt & Richardson, 2007), ENTRÉE project (Peixoto et al., 2018), BRiTE project (Mansfield et al., 2015), the FIRE project, UP (Coetzee, 2013) and an assets-based model (Morgan, 2011) which used a Likert-type scale to measure TR. The validity of the questionnaire was established by Watt and Richardson (2007) during the development of the FIT-Choice scale. The developmental study provided and established good evidence for construct validity across two independent samples.

The REPSSI SC scale is drawn from OPHI's operational definitions of SC that assesses both external and internal indicators of SC and isolation (Bandeira & Mazibuko, 2017; Zavaleta et al., 2014). "OPHI's conceptualisation of social connectedness builds on multidisciplinary work that explores external and internal aspects of social connectedness and proposes a conceptual framework and a series of indicators to measure social connectedness" (Ebersöhn et al., 2020, p. 10). For reliability and validity measures, the scale has no empirical support. On the other hand, the conceptual scales provide a solid foundation for developing fundamental internationally comparable indicators that assess specific characteristics of SC and isolation. OPHI's conceptualisation and measurement of SC "is based on the literature on social capital, social cohesion, social exclusion and psychological theories of loneliness, which includes both internal and external indicators of social connectedness and isolation" (Tomlinson, 2020, p. 54).

3.7.4 Qualitative: Quality Criteria

3.7.4.1 Introduction

The following section discusses the quality criteria for the qualitative phase of my study. Despite the fundamental epistemological differences between QUAN+QUAL research, there are scientific similarities between the various approaches, such as both types of researchers using empirical observations to address RQs. Both sets of researchers incorporate safeguards into their inquiries to reduce confirmation bias - defined as "systematic overconfidence in a focal hypothesis" – (McKenzie, 2006, p. 577) and to enhance trustworthiness (Plano Clark & Ivankova, 2016). Trustworthiness (see Section 3.7.4.2) is about establishing four criteria, namely, credibility, transferability, dependability and confirmability, which are discussed in Sections 3.7.4.3 to 3.7.4.6.

3.7.4.2 Trustworthiness

Trustworthiness in qualitative research refers to the degree to which the findings took place as the researcher reported them. Trustworthiness is flexible and negotiable, as readers may not share in the researcher's subjective interpretation of the data (Cohen et al., 2018). However, other people reading the research should be able to discern how the research interpretation occurred through reflexivity and peer debriefing. The term "reflexivity" refers to a researcher's understanding of the direct or indirect impact of her role in the research process on the findings (Cohen et al., 2018). As such, I remained reflexive throughout the research process by acknowledging and reflecting on the possible influence of researcher bias. I documented these reflections throughout the intervention in a research journal (Appendix G).

Despite my best efforts to be open to the participants' opinions and points of view, I realise that I entered the research field with my own frame of reference. Some of a researcher's beliefs and assumptions are based on cultural backgrounds, political ideologies,

race, gender, and social status (Goodson & Gill, 2011). I was continuously aware of and acknowledged these assumptions and beliefs through reflection. I reflected on my own learning process, identifying themes, sub-themes, patterns, and possible connections between data (Goodson & Gill, 2011). In addition, I pondered on the tactics and strategies I utilised, determining which were successful and which were not.

3.7.4.3 Credibility

The term “credibility” refers to the research findings accurately reflecting the participants' replies (Cohen et al., 2018). The necessity of openness in any research project is emphasised by credibility, as openness is the foundation of public accountability, methodology, and outcomes. Participants should assess research findings for potential bias and one-sidedness. As such, teachers had the opportunity to judge the credibility of the results as authentic and relevant by using member checking during joint teacher-researcher meetings (27 May 2019, 29 July 2019 and 21 September 2019). I double-checked my comprehension and depiction of the participants’ perspectives throughout my study process. Furthermore, detailed disclosures of methodological decisions and processes improved my study's rigour (Cohen et al., 2018). Numerous data sources (For textual data: verbatim transcriptions of audio-recorded school-group presentations on PRA prompts – see Appendix E. For visual data: photographs of PRA posters – see Appendix F. For observation data: field notes and researcher journal on PRA-process – see Appendix G) were used and documented throughout the intervention to enhance the quality of data interpretation (Maree, 2019).

3.7.4.4 Transferability

Transferability refers to whether certain aspects of the research findings can be viewed as lessons learnt that might apply to various populations in similar settings (Nieuwenhuis, 2019). Generalisations in qualitative studies to larger populations are not possible because occurrences inside a single sample population are not time- nor context-free. Transferability of these created working assumptions from case to case may be achievable, depending on the degree of contextual similarity (Willig, 2018). Although each with unique characteristics, the six participating schools share a similar challenged educational context. Furthermore, the majority of the participants are female, implying that the findings from my study could differ in other contexts and other genders. However, the reliability and transferability of these conclusions to other similar contexts or populations are enhanced by the variety and richness of qualitative data sources (Nieuwenhuis, 2019).

There are always aspects that are unique to a specific case or series of events that limit transferability to other contexts. Therefore, it is critical to have detailed information about the case under study to decide whether the working assumptions derived from the study apply to other cases or contexts (Maree & Pietersen, 2019). A researcher who intends to transfer

the results to a different context should take responsibility for determining whether the transfer is reasonable. As such, I provide rich descriptions of my study's context in the form of photographs (see Photographs 1 to 51), statistics of the participating schools (see Table 3.2) and demographic information of participating teachers (see Table 3.4).

The focus of my study was to understand, measure and describe the impact of SC on resilience in teachers in primary schools. I purposively sampled six EC primary schools from lower socio-economic neighbourhoods and conveniently sampled teachers from these schools. The transferability of my findings is limited to (i) educational contexts characterised by similar structural disparity challenges, (ii) primary schools, (iii) mostly female teachers aged around 50 years of age with around 19 years of teaching experience on average, and (iv) tertiary teaching qualifications.

3.7.4.5 Dependability

Dependability refers to the researcher's ability to account for changes that occur during the study and the social world by engaging in constant reflection through research reflexivity, and choosing multiple data sources such as transcriptions, photographs and written accounts (Cohen et al., 2018; Goodson & Gill, 2011). Being a reflexive researcher entails an awareness of the interconnectedness of the researcher and the social world and how they may be influenced by their perceptions (Cohen et al., 2018).

I was the primary instrument for collecting and analysing data for both the QUAN+QUAL component of the research design. My role would have been the same for the quantitative component of the research design, whoever administered the questionnaires. For the qualitative component of the research design, I had the opportunity to take advantage of the possibilities to gather and develop significant and rich data in my capacity. The reality that humans are subjective beings, on the other hand, limited my role as a human instrument. Because researchers do not have direct access to another's perspective, an accurate description of what was said or meant is impossible (Cohen et al., 2018). I was mindful of how I perceived the research process and how my background and perspective may have influenced my impressions of my study outcomes throughout the research process. I attempted to address this potential problem by thinking about the potential filters that could influence my interpretations and jotted them down in my research journal. To limit subjectivity and to reflect on possible interpretations after each session, I held regular debriefing sessions with my co-researcher and supervisors. I used multiple data sources (For textual data: verbatim transcriptions of audio-recorded school-group presentations on PRA prompts – see Appendix E. For visual data: photographs of PRA posters - see Appendix F. For observation data: field notes and researcher journal on PRA-process – see Appendix G) in my study to

enhance dependability. In addition, I documented the research with photographs displayed throughout the research chapters (see Photographs 1-51).

3.7.4.6 Confirmability

In qualitative research, confirmability refers to the degree to which a study's outcome reflects the inquiry's focus rather than the researcher's prejudices (Babbie, 2020). A sufficient audit trail should be left behind to enable a third party to trace the sources used to establish the interpretations and conclusions to increase confirmability. In Table 3.1, at the beginning of the chapter, I provide a clear explanation and account of my research process with documented data sources and refer the reader to the relevant appendices. In addition, I remained reflexive throughout the research process by continually reflecting on the research process to enhance confirmability (refer to Appendix G). As the data collection took place with a research team, this enabled me to get input from my co-researchers during data collection and rely on participants' input during member checking. Member checking occurred during joint teacher-researcher meetings on 27 May 2019, 29 July 2019, and 21 September 2019 (refer to Appendix F for the research visit schedule). My supervisors assisted me in deriving results and formulating findings in line with my data throughout the research process.

3.8 Conclusion

This chapter explained and justified my research methodology and strategies. An MMR approach was used to collect, document and analyse QUAN+QUAL data concurrently to explore and understand the complexities surrounding TR within a challenged educational context. The study emphasised paradigmatic assumptions, which included a discussion on pragmatism as the meta-theoretical paradigm of my study. The advantages and limitations of MMR and the criteria for choosing an MMR design for my study were discussed and justified. Following this, I discussed the research process and different study phases by outlining the development and roll-out of the Isithebe intervention. I then discussed and justified using the different data collection and documentation techniques. I concluded the chapter by addressing the standards of rigour for the quantitative component of my study, followed by discussing the quality criteria for the qualitative component of my study.

In the upcoming chapters (Chapters 4 and 5), I endeavour to address the SRQs, "How does TR compare pre- and post-intervention?" and "How does SC compare pre- and post-intervention?".

4 Chapter Four: Social Connectedness Research Findings

4.1 Introduction

In Chapter 3, I explained the choice of a pragmatic meta-theoretical approach and a concurrent MMR intervention design for my study. I outlined the development and stages of the "Isithebe" SC intervention using implementation science and explained the data collection methods. To generate QUAN+QUAL data at pre-intervention, during the intervention and post-intervention with teachers, an intervention design with a concurrent triangulation MMR methodology was used. Chapter 4 presents MMR results for SC findings, followed by Chapter 5, which reports on MMR results for TR findings.

In Chapter 4, both quantitative, qualitative and integrated QUAN+QUAL results endeavour to address SRQ1: "How does SC compare pre- and post-intervention?" and SRQ2: "To what extent did the SC intervention with teachers in peri-urban primary schools enable SC?" I present an overview of quantitative findings generated at pre- and post-intervention data collection to address these questions. After that, I present the qualitative findings generated at pre-, process and post-data collection points, followed by an integration of QUAN+QUAL findings. The qualitative data was first inductively analysed to generate themes and sub-themes. After that, scales used for The REPSSI SC scales and corresponding links to sub-themes are deductively analysed to discuss differences in pre- and post-intervention results.

As I highlight in Table 4.1, I share quantitative, qualitative and integrated results to address SRQ1 "How does SC compare pre- and post-intervention?". After this discussion, I situate the findings within the literature by exploring confirmatory and contradictory studies and present novel insights generated from my findings.

Table 4.1

Outline of Chapter 4: SC Findings

SRQs	Relevant section	Documented data used for analysis	Data analysis
SRQ1 "How does SC compare pre- and post-intervention?"	4.2. Quantitative Pre- and Post-Intervention SC Results 4.2.1 Introduction 4.2.2. Reliability of the REPSSI SC Questionnaire 4.2.3. REPSSI SC Questionnaire Descriptive Item-Level Statistics 4.2.4. REPSSI SC Questionnaire Pre- and Post-Intervention Quantitative Results	*Quantitative* Completed questionnaires - selected items from the SC TR REPSSI scale - Appendix C.	*Quantitative* Analysis: Not normally distributed – WSR test "used to compare the pre- and post-intervention scores" ((Ebersöhn et al., 2020, p. 28)
	4.3. Qualitative SC Results 4.3.1. Introduction 4.3.2. Process Qualitative SC Results 4.3.3. Post-Intervention Qualitative SC Results	*Qualitative* Verbatim transcriptions of audio recorded teacher-group PRA presentations. Appendix E.	*Qualitative* Within case thematic inductive analysis of transcriptions

	4.4. Integrating QUAN+QUAL SC Results 4.4.1 Introduction 4.4.2 MMR SC Results 4.4.3. SC TR Questionnaire Scales and Corresponding Links to Qualitative Sub-Themes	*Quantitative* Completed questionnaires - selected items from the SC TR REPSSI scale - Appendix C	*Qualitative* REPSSI scales and Sub-themes are deductively analysed to link SC scales to qualitative Sub-themes
SRQ2: "To what extent did the SC intervention with teachers in peri-urban primary schools enable SC?"	4.5. Literature control 4.5. Literature control 4.5.1. Introduction 4.5.2. Sub-Theme 1.1: Awareness of SC 4.5.3. Sub-Theme 1.2: Teachers Bonding Within and Across Social Networks 4.5.4. Sub-Theme 1.3: Leveraging School-community Networks 4.5.5. Sub-Theme 1.4: SC Valuing Positive Family Relationships 4.5.6. Sub-Theme 1.5: Teachers Bonding Within and Across Social Networks 4.5.7. Sub-Theme 2.1: Providing Implicit Social Support to Learners, Co-workers and School-Community Members 4.5.8. Sub-Theme 2.2. Providing Explicit Social Support to Learners, Co-workers and School-Community Members 4.5.9. Sub-Theme 3.1: Receiving Implicit Social Support from Co-workers, the School-Community, and Friends and Family 4.5.10. Sub-Theme 3.2: Receiving Explicit Social Support from Co-workers, the School-Community, and Friends and Family		

4.2 Quantitative Pre- and Post-Intervention SC Results

4.2.1 Introduction

The REPSSI SC questionnaire was included as a pre- and post-intervention measure. It was anticipated that the data would not be normally distributed due to the small sample size (n = 22) with a skewed number of females to males (F=20, M=2). Pre- and post-test cross-sectional data was generated on a single sample of peri-urban primary school teachers (Saunders & Tosey, 2013) to describe the SC of teachers before and after participation in an SC intervention.

There were 36 valid and "completed questionnaires from the pre-intervention data collection (September 2018) and 22 completed questionnaires from the post-intervention data (September 2019)" (Ebersöhn et al., 2020, p. 25). Section 4.2.2 presents Cronbach's alpha coefficients to establish the reliability of the REPSSI SC questionnaire. Section 4.2.3 presents the descriptive item-level statistics of raw scores for the SC questionnaire for the 22 teachers who completed pre- and post-intervention SC questionnaires. Section 4.2.4 presents comparative quantitative results for averages of the scale scores for SC pre- and post-intervention scores.

4.2.2 Reliability of the REPSSI SC Questionnaire

Reliability analysis was conducted using Cronbach's alpha coefficients to establish whether the underlying variable structure of the REPSSI SC questionnaire holds up well in the setting of South African peri-urban primary school teachers in challenged contexts (Tomilson, 2020). A Cronbach's alpha value of .60 or greater is generally accepted by researchers in the social sciences (Ghazali, 2008). The generally agreed-upon lower limit for Cronbach alpha is 0.70, although some researchers advocate that a value as low as 0.60 is acceptable in general (Daud et al., 2018; Hancock & Mueller, 2013; Nunnally & Bernstein, 1994; Van Griethuijsen et al., 2015; Zhan et al., 2021), in exploratory research (Hair et al., 2019, Robinson et al., 1991) and social sciences (Ghazali, 2008; Widaman, 1993). Taber (2018) provides a valuable contribution to the literature where they discuss what they refer to as the "arbitrary threshold for an *acceptable* value" (p. 1273). Taber (2018) discuss many literature studies on the use of Cronbach's alpha and lists all the different recommendations as "alpha values were described as excellent (0.93-0.94), strong (0.91-0.93), reliable (0.84-0.90), robust (0.81), fairly high (0.76-0.95), high (0.73-0.95), good (0.71-0.91), relatively high (0.70-0.77), slightly low (0.68), reasonable (0.67-0.87), adequate (0.64-0.85), moderate (0.61-0.65), satisfactory (0.58-0.97), acceptable (0.45-0.98), sufficient (0.45-0.96), not satisfactory (0.4-0.55) and low (0.11)" (p. 1278). Thus, although there is much debate on the minimum acceptable value for Cronbach's alpha, we use 0.6 as many studies advocate that this is an acceptable cut-off value. The

Cronbach's alpha coefficients, and their corresponding 95% CI for each factor, are shown in Table 4.2, ordered from the highest to the lowest value (Tomlinson, 2020).

Table 4.2

Scales, Corresponding Cronbach's Alpha Coefficients and 95% CIs for the SC Questionnaire

Scales	Cronbach's alpha	95% CIs for Cronbach's alpha	Number of items
Scale 1: Building relationships	.683	(.464, .827)	4
Scale 2: Social support	.710	(.535, .839)	17
Scale 3: Social isolation	.696	(.346, .886)	11
Scale 4: Trusted connections	.656	(.319, .826)	2

(Tomlinson, 2020).

From Table 4.2, it is evident that the Cronbach's alpha coefficient for Social Support is above the generally accepted value of .7. Although the Cronbach's alpha values of the other scales are below .7, it should be noted they are acceptable according to the guidelines set out by Ghazali (2008). This being said, further studies could seek to improve the reliability of these three scales in the setting of South African peri-urban primary school teachers in challenged contexts.

4.2.3 Descriptive Statistics of the REPSSI SC Questionnaire

As discussed in Chapter 3, the REPSSI SC questionnaire is drawn from OPHI's operational definition of SC and assesses external and internal indicators of SC and isolation (Zavaleta et al., 2014). For my study, Question 6 (Scale 1), Question 7 (Scale 2), Question 8 (Scale 3) and Question 9 (Scale 4), signifying internal SC, were selected. "Internal indicators of social connectedness refer to an individual's subjective perception of their own degree of interaction in the social environment" (Ebersöhn et al., 2020, p. 10). Four scales were used in the REPSSI questionnaire: Building Relationships, Need for Relatedness (social support), Belonging vs Loneliness/Isolation (social isolation) and Trust (trusted connections).

"The total score on this test could range from 1 to 66" (Ebersöhn et al., 2020, p. 26). The raw data of the questionnaire was ordinal; however, once averaged and converted into a mean score, this data becomes continuous and can therefore be analysed as continuous data (Lopez et al., 2015). For example, "strongly disagree" is represented by the number 4; all scores added together get a result that is a continuous variable, such as 36. In the "pre-

intervention, the mean scores for the whole sample ranged from 36 to 63" (Ebersöhn et al., 2020, p. 26), with an average 56.50 (SD = 5.10). "The baseline scores fell within the range of 'high social connectedness' before the intervention" (Ebersöhn et al., 2020, p. 26).

The REPSSI scales on internal SC (an individual's subjective assessment of their own degree of social interaction) were purposively sampled and renamed as follows:

- Scale 1: Building Relationships
- Scale 2: Need for Relatedness (social support)
- Scale 3: Belonging vs Loneliness/Isolation (social isolation)
- Scale 4: Trust (trusted connections)

As each scale on the REPSSI questionnaire uses a different scoring system, each was analysed separately. All pre- and post-intervention responses were electronically captured on an Excel sheet (seen Appendix J). Scale 1 (Building relationships) consisted of questions about the perceived ability to build relationships with others. As seen from the response options below, a high score for Scale 1 is an indication of high SC:

0 = "Don't know / no answer"
1 = "Not at all skilled"
2 = "Not very skilled"
3 = "Fairly skilled"

For Scale 2 (Need for Relatedness), the questions centred around relatedness with various members of one's community. As seen from the response options below, a high score for Scale 3 is an indication of high SC:

0 = "Don't know / no answer"
1 = "Not at all true"
2 = "Not very true"
3 = "Fairly true"
4 = "Very true"

For Scale 3 (Belonging vs Loneliness/Isolation), asked questions about issues of loneliness as opposed to a sense of belonging. On Scale 3, a high score indicates the presence of loneliness and isolation (in other words, the absence of SC). Therefore, on Scale 3, a low score indicates high SC, with Questions 9.1, 9.6 and 9.7 requiring reverse-scoring and thus recoding on SPSS. The response options for Scale 4 included:

1 = "Yes"
2 = "More or less"
3 = "No"

For Scale 4 (Trust), questions were asked about community members' perceived degree of trust of other people in the community. The response options on Scale 5 were not consistent,

with response options, differing across questions. As seen below, response options for Question 10 included:

"People can be trusted"

"You can't be too careful"

For Questions 11 to 23, response options included:

"Yes"

"No"

Finally, response options for Questions 25 to 26 included:

1 = "Yes"

2 = "More or less"

3 = "No"

Scores on Question 10 and Questions 11 to 23 were therefore adjusted to a scoring system of 1 = "Yes," 3 = "No" to create consistency with Questions 25 to 26. Therefore, for the whole of Scale 5 (Question 10, Questions 11 to 23, and Questions 25 to 26), high scores indicate low SC.

Tables 4.3 to 4.7 show the pre- and post-intervention item-level descriptive statistics across SC scales. Four scales were used in the REPSSI questionnaire, namely: Building Relationships (Scale 1), Social Support (Scale 2), Social Isolation (Scale 3), and Trusted Connections (Scale 4).

Table 4.3

Pre- and Post-Intervention Descriptive Statistics for Scale 1 - Building Relationships

Questions	*n*	$\bar{x}$		Mdn		SD	
		Pre	Post	Pre	Post	Pre	Post
"Skilled in building relationships for yourself" (Q6.1, Appendix C)	22	3.43	3.64	3	4	0.60	0.58
"Skilled in building relationships for primary care givers" (Q6.2, Appendix C)	22	3.33	3.48	3	3	0.58	0.51
"Skilled in building relationships for children" (Q6.3, Appendix C)	22	3.43	3.80	4	4	0.68	0.52
"Skilled in building relationships for the community" (Q6.4, Appendix C)	22	3.43	3.33	3	4	0.60	0.86

Table 4.3 shows the pre-intervention raw scores for Building Relationships with a median of 3 ("fairly skilled") for most responses and a median of 4 ("very skilled") for Question 6.3: "Skilled in building relationships for children". Pre-intervention results indicate that most teachers feel fairly skilled in building relationships in various areas of life and very skilled in building relationships with children. The median for post-intervention raw scores increased to 4 ("very skilled") for all items except Question 6.2: Skilled in building relationships for primary

caregivers. These results suggest that, on average, the teachers displayed high SC in building relationships in pre-intervention and even more in post-intervention.

Table 4.4

Pre- and Post-Intervention Descriptive Statistics for Scale 2 - Need for Relatedness (Social Support)

Questions	*n*	$\bar{x}$		Mdn		SD	
		Pre	Post	Pre	Post	Pre	Post
"I get along well with people I come into contact with" (Q8.1, Appendix C)	22	3.50	3.36	3.50	3.00	0.51	0.58
"I can deal with life's challenges" (Q8.2, Appendix C)	22	3.55	3.48	4.00	4.00	0.51	0.60
"I am close to the people I regularly interact with" (Q8.3, Appendix C)	22	3.45	3.50	3.00	3.50	0.51	0.51
"I have people in my life that care about me" (Q8.4, Appendix C)	22	3.59	3.77	4.00	4.00	0.59	0.43
"The members of my family have respect and trust for one another" (Q8.5, Appendix C)	22	3.23	3.41	3.00	4.00	0.75	0.80
"I believe I can do whatever I decide to do" (Q8.6, Appendix C)	22	3.41	3.24	3.50	3.00	0.73	0.89
"I am able to build relationships" (Q8.7, Appendix C)	22	3.62	3.55	4.00	4.00	0.50	0.67
"The community I live in has a strong sense of social connections" (Q8.8, Appendix C)	22	3.09	2.95	3.00	3.00	0.87	0.90
"The community I live in has safe spaces for children to learn" (Q8.9, Appendix C)	22	2.33	2.40	2.00	2.00	0.80	0.88
"My connections (networks) help me to access resources that support my goals" (Q8.10, Appendix C)	22	3.18	3.52	3.00	4.00	0.66	0.60
"My connections (networks) help me to access resources for the children I work with" (Q8.11, Appendix C)	22	3.18	3.38	3.00	3.00	0.66	0.59

As indicated in Table 4.4, both pre- and post-intervention raw scores for "Need for Relatedness" indicated a median of 3 ("fairly skilled") and 4 ("very skilled") for most responses, with a median of 2 (not very skilled) for Question 8.9: "The community I live in has safe spaces for children to learn". These results indicate that most teachers seem to find the questions surrounding "Need for Relatedness" to be "fairly true" to "very true". A lower median score (Mdn = 2.00; SD = 0.801) on Question 8.9 indicates that teachers do not feel confident that their communities have safe spaces for children to learn. This indication draws one's attention to the lingering effects of post-colonial disparity and the resulting challenged educational landscape within which participating teachers work. The results suggest that, on average, the teachers displayed high SC in the need for relatedness. This result supports the RRR theoretical framework of my study that posits in contexts where the need is high and distress

is viewed as a collective challenge, preferences for SC values and beliefs indicate teachers drawing together in times of distress to support collective well-being outcomes.

Table 4.5

Pre- and Post-Intervention Descriptive Statistics for Scale 3 - Belonging vs Loneliness (Social Isolation)

Questions		$\bar{x}$		Mdn		SD	
	n	Pre	Post	Pre	Post	Pre	Post
"I feel that no one really knows me" (Q9.1, Appendix C)	22	1.80	1.89	2.00	2.00	0.63	0.78
"I can find company when I need it" (Q9.2, Appendix C)	22	1.71	1.68	2.00	1.50	0.46	0.78
"There are plenty of people I can rely on when I have problems" (Q9.3, Appendix C)	22	1.73	1.77	2.00	1.50	0.77	0.87
"There are many people I can trust completely" (Q9.4, Appendix C)	22	1.82	1.82	2.00	2.00	0.66	0.66
"There are enough people I feel close to" (Q9.5, Appendix C)	22	1.73	1.45	2.00	1.00	0.70	0.67
"I miss having people around" (Q9.6, Appendix C)	22	2.24	1.91	2.00	2.00	0.62	0.81
"I often feel rejected" (Q9.7, Appendix C)	22	2.41	2.64	2.50	3.00	0.67	0.73

As shown in Table 4.5, the raw scores for pre- and post-intervention responses for Belonging vs Loneliness ranged from 3 (the highest reported score) to 1 (the lowest reported score), with a median of 2 for most responses. As a high score on Scale 3 indicates high loneliness or isolation (low SC), these results indicate that most teachers answered "Yes" or "More or less" to questions surrounding belonging and "No" to questions surrounding loneliness and isolation. These results indicate that the teachers in the sample do not report experiences of loneliness or isolation on average. It is interesting to note that teachers who scored high on belonging also scored high on Scale 1: Building Relationships, and Scale 3: Need for Relatedness, indicating that building relationships, belonging, and the need for relatedness appear to be inter-related concepts in the understanding of SC through interpersonal relationships.

Table 4.6

Pre- and Post-Intervention Descriptive Statistics for Scale 4 – Trust

Questions	*n*	$\bar{x}$		Mdn		SD	
		Pre	Post	Pre	Post	Pre	Post
"Would you say that people can be trusted?" (Q10, Appendix C)	22	2.50	1.67	3.00	1.50	1.00	0.82
"Are there people in your family that you trust?" (Q11, Appendix C)	22	1.48	1.19	1.00	1.00	0.87	0.60
"Are there people in your family that you can call on for help?" (Q13, Appendix C)	22	1.18	1.00	1.00	1.00	0.59	0.00
"Are there people in your workplace that you trust?" (Q15, Appendix C)	22	1.09	1.05	1.00	1.00	0.43	0.21
"Are there people in your workplace that you can call on for help?" (Q17, Appendix C)	22	1.09	1.00	1.00	1.00	0.43	0.00
"Do you have friends that you trust?" (Q19, Appendix C)	22	1.36	1.18	1.00	1.00	0.79	0.39
"Do you have friends that you can call on for help?" (Q21, Appendix C)	22	1.18	1.00	1.00	1.00	0.59	0.00
"Are there people in your community that you trust?" (Q23, Appendix C)	22	1.36	1.27	1.00	1.00	0.79	0.55
"Do you feel that people in the communities you work in have people that they trust?" (Q25, Appendix C)	22	1.59	1.45	2.00	1.00	0.59	0.67
"Do you feel that people in the communities you work in have people that they can ask for help from?" (Q26, Appendix C)	22	1.38	1.32	1.00	1.00	0.50	0.48
"How important do you think it is that people are socially connected?" (Q27, Appendix C)	22	2.44	2.75	3.00	3.00	0.70	0.55

Descriptive statistics for Scale 4: "Trust" are presented in Table 4.6. For consistency in the scale, responses of "Yes" (1 = Yes) and "No" (3 = No) were coded throughout the scale to reflect the scoring in Questions 25 and 26, where "More or less" (2 = "More or less") is added as a response option. High scores on this scale indicate low SC. Thus, the resultant scores for Trust ranged from 3 (the highest reported score) to 1 (the lowest reported score), with a median of 1.30 for pre-intervention responses and 1.20 for post-intervention responses. As low scores on this scale indicate high SC, these results indicate that most teachers report that they have people in their communities that they can trust, and even more so from post-intervention responses. Interestingly, the Trust scale was the only scale to have increased significantly between pre- and post-intervention measurement. The only exception was

Question 10, with a higher score (Mdn = 3.00 for both pre- and post-intervention responses); however, this discrepancy is likely because the item provided an ambiguous response box that many participants omitted.

4.2.4 The REPSSI SC Questionnaire Pre- and Post-Intervention Results

Quantitative SC data from the Isithebe baseline data set was analysed and compared across 22 teacher participants who completed both pre- and post-intervention TR questionnaires. The 14 pre-test questionnaire responses for teachers who only completed the pre-intervention questionnaire were excluded from the pre- and post-intervention analysis. The S-W test is a non-parametric test that makes no assumptions about the distribution of data and can be used to compare two samples (Mentz & Botha, 2012). “According to the Kolmogorov-Smirnov test, the majority of the scales were not normally distributed ($p < 0.05$). It was decided to err on the side of caution and use the non-parametric WSR test to compare the pre- and post-intervention scores” (Ebersöhn et al., 2020, p. 28).

From Table 4.7, it can be seen that the results of the pre- and post-intervention differ significantly only for the Trust scale and the total score, with the post-score being significantly higher than the pre-score.

Table 4.7

Results of WSR Tests for SC

n=22	$\bar{x}$ (SD)		WSR test	
	Pre	Post	Test statistic	p-value
Total score	57.30 (3.350)	60.17 (3.243)	-3.377	.001*
Building Relationships	7.77 (0.528)	7.55 (1.405)	-0.425	.671
Need for Relatedness (social support)	20.48 (1.275)	20.91 (1.443)	-1.092	.275
Belonging vs Loneliness (social isolation)	10.74 (1.096)	11.09 (1.125)	-1.248	.212
Trust	18.65	20.61	-3.137	.002*

(1.748) (1.971)

*Statistically significant ($p < 0.05$)

The significant differences between the SC pre- and the post-test for the total score and total Scale 4 are apparent in Figure 4.1, showing the mean scores. This confirms the findings from the WSR test that for total Scales 1, 2 and 3, there are no significant differences in pre-and post-test SC results. The pre and post-test mean scores are the total scores of the items they comprise for the teacher SC measure. Figure 4.1 displays the mean scores of pre- and post-test SC scale scores.

Figure 4.1

SC Pre- and Post-Intervention Mean Scale Scores Comparison

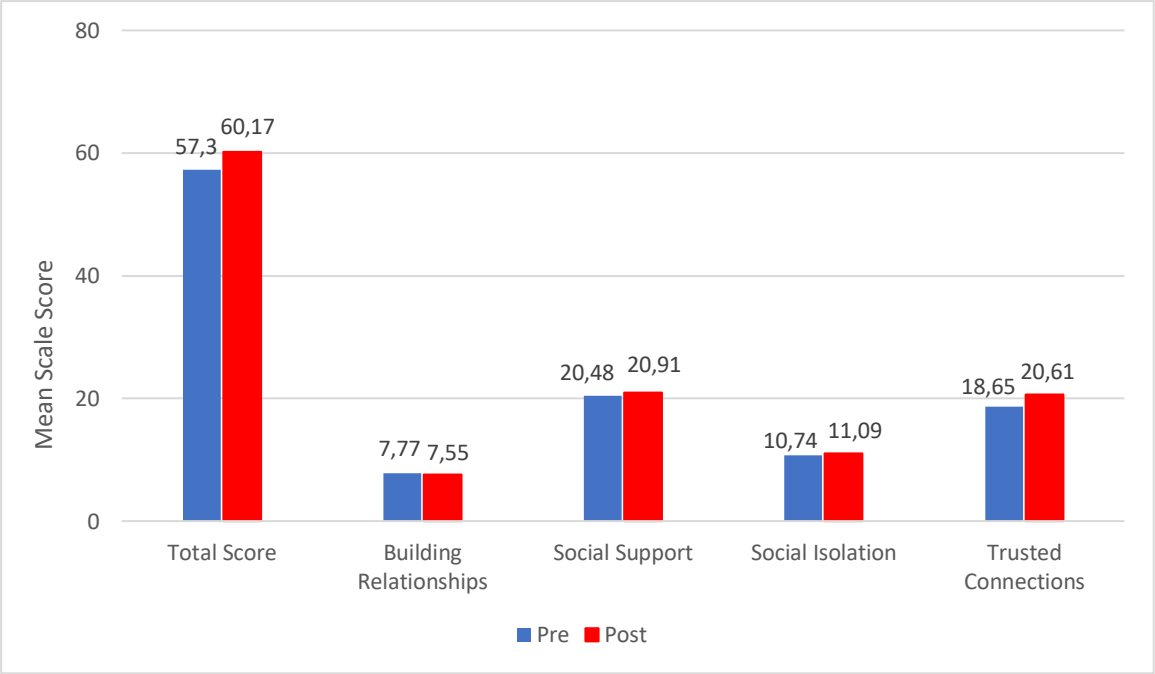


Figure 4.1, presenting the composite scale scores for pre- and post-intervention scores, indicated initial high pre-intervention SC levels for in-service teachers from the six primary schools challenged by severe deprivation. The pre-intervention scores for SC of the teachers in the sample were high across all four scales: building relationships, social support, social isolation and trusted connections.

Following the Isithebe SC intervention, quantitative data showed an increase in SC scores of participating teachers. Post-intervention scores show a significant increase in participants' overall score for SC and a significant increase of Scale 4 (the degree to which a person trusts other people in their community).

4.3 Qualitative SC Results

4.3.1 Introduction

Section 4.3 answers SRQ1: “How does SC compare pre- and post-intervention?” In the following subsections, I discuss the themes and sub-themes which emerged from inductive TA on SC process and post-intervention study phases. Table 3.6 in Chapter 3 presented an overview of PRA-prompts and activities used to generate qualitative process and post-intervention data. Due to time constraints during pre-intervention data collection, teachers were unable to address the PRA question, “how do relationships help you to be a good teacher?” Therefore, only process data collected in May and July 2019 and post-intervention data collected in September 2019 teacher-researcher meetings were analysed.

4.3.2 Qualitative SC Results

I analysed verbatim transcriptions of audio recorded teacher-group PRA presentations for the given study phases to determine teacher perspectives on SC: Process data (collected in May 2019 and July 2019) and post-intervention data (collected in September 2019). Qualitative process and post-intervention themes and sub-themes describe enablers of SC amongst peri-urban primary school teachers in challenged contexts during and after an SC intervention. The process data revealed Theme 1: “Strengthening SC competence”, which was broken down into Sub-theme 1.1: “Awareness of SC”; Sub-theme 1.2: “Teachers bonding within and across school social networks”; Sub-theme 1.3: “Leveraging school-community networks”; and Sub-theme 1.4: “Valuing positive, family relationships”. Subtheme 1.5: “Teachers bonding within and across school social networks” developed at post-intervention data collection. In addition to Subtheme 1.5, Theme 2: “Providing social support as resilience-enabling resource for teachers” and Theme 3: “Receiving social support as resilience-enabling resource for teachers” developed during the post-intervention phase. Table 4.8 provides an overview of inclusion and exclusion indicators for themes and sub-themes that emerged from the inductive TA generated at the process and post-intervention data collection points. Section 4.3.3 and 4.3.4 describe process and post-intervention themes and sub-themes as I substantiate the findings through verbatim participant quotations and extracts from my research journal per intervention phase.

Table 4.8

Qualitative SC themes per intervention phase

Theme	Sub-theme	Process and post-intervention	Definition	Inclusion criteria	Exclusion criteria
1. "Strengthening SC competence"	1.1: "Awareness of SC"	Process intervention	SC is defined as a person's subjective sense of having meaningful and positive relationships with others in the social world. Awareness of the advantages of social inclusion rather than isolation.	Instances where teachers spoke about the "advantages of social inclusion rather than isolation" (Ebersöhn et al., 2020, p. 36).	Instances where teachers spoke about social support without acknowledging the advantages and benefits of social inclusion.
	1.2: "Teachers bonding within and across school social networks"		Bonding within social networks refers to an increased connection between teachers within and across schools.	Instances where teachers spoke about fostering affiliation and association between teachers within and across schools. This served as a platform to access social networks between schools and stakeholders.	Instances where teachers spoke about social support without acknowledging affiliation and association between teachers within and across schools. This provided a platform to access social networks between schools and stakeholders.

	1.3: “Leveraging school-community networks”.		Collaborating with individuals and organisations to provide psychosocial support to learners and the community.	Instances where teachers spoke about leveraging networking capacity (collaborating with individuals and organisations to provide psychosocial support to learners and the community).	Instances where teachers did *not* speak about leveraging networking capacity (collaborating with individuals and organisations to provide psychosocial support to learners and the community).
	1.4: “Valuing positive, family relationships”		SC helped teachers value positive relationships between teachers and family members.	Instances where teachers spoke about positive relationships with others in the social world that included a meaningful connection to significant others.	Instances where teachers spoke about social support without acknowledging a meaningful connection to significant others.
	1.5: “Teachers bonding within and across school social networks”.	Post-intervention	Bonding within social networks refers to increased connection between teachers within and across schools to increase connection between different schools and stakeholders.	Instances where teachers spoke about fostering affiliation and association between teachers within and across schools. This serves as a platform to access social networks between schools and stakeholders.	Instances where teachers spoke about social support without acknowledging affiliation and association between teachers within and across schools as a platform to access social networks between schools and stakeholders.

2. "Providing social support as resilience-enabling resource for teachers"	2.1. "Providing *implicit* social support to learners, co-workers and school-community members".	Post-intervention	"Implicit social support denote that people benefit from social connectedness by receiving or giving emotional comfort to others in their lives" (Ebersöhn et al., 2020, p. 32).	Instances where teachers reported examples of *providing* implicit social support through "tolerance, listening, good communication skills, being caring, loving, sharing and bearing more than the role of a colleague" (Ebersöhn et al., 2020, p. 32).	Instances where teachers did *not* report examples of *providing* implicit social support that included "tolerance, listening, good communication skills, being caring, loving, sharing and bearing more than the role of a colleague" (Ebersöhn et al., 2020, p. 32).
	2.2. "Providing *explicit* social support to learners, co-workers and school-community members".		"Explicit social support signifies instances where people actively draw on social networks for support to provide concrete services to others facing challenges" (Ebersöhn et al., 2020, p. 32).	Instances where teachers reported examples of *providing* explicit social support that included "explicit reciprocal donations, borrowing and lending" (Ebersöhn, 2019, p. 1).	Instances where teachers did *not* report examples of *giving* explicit social support including sharing costs and incomes in financial undertakings.
3. "Receiving social support as resilience-enabling resource for teachers"	3.1: "Receiving *implicit* social support from co-workers, the school-community, and		"Implicit social support denote that people benefit from social connectedness by receiving or giving emotional comfort to others	Instances where teachers reported examples of *receiving* implicit social support that included "tolerance, listening, good communication skills, being caring, loving, sharing and	Instances where teachers did *not* report examples of *receiving* implicit social support that included "tolerance, listening, good communication skills, being caring, loving, sharing and

	friends and family".	in their lives" (Ebersöhn et al., 2020, p. 32).	bearing more than the role of a colleague" (Ebersöhn et al., 2020, p. 32).	bearing more than the role of a colleague" (Ebersöhn et al., 2020, p. 32).
	3.2: "Receiving *explicit* social support from co-workers, the school-community, and friends and family".	"Explicit social support signifies instances where people actively draw on social networks for support to provide concrete services to others facing challenges" (Ebersöhn et al., 2020, p. 32).	Instances where teachers reported examples of *receiving* explicit social support that included "explicit reciprocal donations, borrowing and lending" (Ebersöhn, 2019, p. 1).	Instances where teachers did *not* report examples of *receiving* explicit social support, including sharing costs and incomes in financial undertakings.

4.3.3 Theme 1: Strengthening SC Competence

Process data collected at May, July and September 2019 teacher-researcher meetings showed that teachers reported strengthened SC competence. Besides awareness of the advantages of SC (Sub-theme 1.1), teachers also mentioned other enhanced competencies aligned to SC, such as the capacity for bonding within and across school social networks (Sub-theme 1.2), leveraging school-community networks (Sub-theme 1.3), and valuing positive, family relationships (Sub-theme 1.4).

4.3.3.1 Sub-Theme 1.1: Awareness of SC

"Even though social ecologies offer informal and formal resources, use of these resources is often diverse. Variations in resource mobilisation are related to perceived availability of informal and formal resources" (Ebersöhn et al., 2020, p. 5). Therefore, an "awareness of the benefits of social connectedness rather than social isolation" (Ebersöhn et al., 2020, p. 36) is essential for teachers to perceive SC as a worthwhile protective resource to draw from despite hardship.

Process and post-intervention data showed that teachers reported an increased awareness of the advantages of social inclusion rather than isolation given an SC intervention, which enhanced competencies aligned to SC, as shown in the following excerpts.

> "Isithebe has created that platform… instead of having dynamics within ourselves…. Now we are having that kind of friendship and connection where we can share struggles and hardship" (School D, July meeting); and
>
> "As teachers, we cannot work as an island, you can't lock yourself in one room, you need to meet with other teachers, so this is another thing that has helped us to do that by supporting each other." (School C, post-intervention); and
>
> "By having these meetings you have an opportunity to discuss everyday life and what is going on in the classroom and then you realise that you actually have a whole community of people who are going through the same experiences and you can get a lot of support them and you are not actually in isolation." (School D, post-intervention).

4.3.3.2 Sub-Theme 1.2: Teachers Bonding Within and Across School Social Networks

Social networks exist in different forms, extending to workplace connections and those in civic engagement. Such relationships are essential drivers for the adaptive processes fundamental to transactional-ecological resilience processes (Ebersöhn, 2019). In challenged educational contexts like South Africa, access to services and infrastructure are limited, making unity and cooperation amongst the community's population and stakeholders paramount for resilience processes (Ebersöhn, 2019). Isithebe fostered affiliation and association between teachers within and across schools, as evident in the following *process and post-intervention* excerpts.

> "We have learnt to build relationships with other stakeholders as we believe you cannot operate as an island." (School C, May meeting); and
>
> "You don't have the necessary skills, that is why you need to consult with other professionals. These gatherings help us to problem solve and how to connect with other stakeholders." (School E, May meeting); and
>
> "We cannot operate as an island. At times we need to work together with the stakeholders from outside, hence this platform teaches us to share information and also to work closely with the stakeholders outside." (School C, July meeting); and
>
> "They teach us how to interact with the other community members because when we meet here, we meet as different schools having different ideas." (School E, July meeting); and

Post-intervention data also indicated that bonding within social networks led to an increased connection between teachers within and across schools and between stakeholders, as evident from the following excerpts.

> "When we are doing the Isithebe activities, we are able to be ourselves so we are able to understand each other and we are able to improve relationships because now we have a better understanding of each other." (School D, post-intervention)
>
> "These stakeholders also promote unity, it is very important." (School C, post-intervention); and
>
> "As a teacher it is very important to have relationships with stakeholders. We have volunteers that come to school to help us clean up the school grounds." (School B, post-intervention); and
>
> "Whenever one of us has challenge, like our children are sick or we have a funeral, we can ask our colleagues for help." (School D, post-intervention); and
>
> "It also improved the relations amongst the teachers because we are able to understand each other in a more comfortable way and we are able to communicate more open and freely, unlike when we are in the classroom or when we are in a staff meeting" (School C, post-intervention).

4.3.3.3 Sub-Theme 1.3: Leveraging School-Community Networks

Leveraging school-community networks involves creating and sustaining effective working relationships among key partners and stakeholders to provide psychosocial support to learners. Isithebe assisted teachers in communicating and connecting within and across schools, which in turn contributed to SC and increased leveraging networking capacity, evident in the following *process and post-intervention* excerpts.

> "These gatherings promote unity and give us a better insight of each other's strengths and weaknesses." (School C, May meeting); and

> "The share ideas, learning from each other, getting advice over challenges that we come across" (School D, May meeting); and
>
> "They help us to cope with stressful situations and also to help with the challenged situations because that is where you get help and guidance on how to deal with the problems." (School C, May meeting); and
>
> "It helps me with my church because I take some of these ideas, like this one, I am going to take it to my church so they can make something and to keep us communicating as a group and helps us make strong relationships with people in my church" (School D, July meeting); and
>
> "The Department of Education does not adequately address all the challenges. We have a lot of infrastructure problems that never get fixed. So, then we have to go out and get the sources for ourselves." (School E, post-intervention); and
>
> "We are always working with the community because in our school, I can say we are a community-based school. When people see the green around our school they ask how did we get it green, and we say that this is what a school is supposed to model. It shows that you can stay in a dirty area, but your home can be clean and then kids can say… my school is clean, I can make my home clean." (School A, post-intervention)

In addition, extracts like the following from my researcher journal support a heightened sense of belonging and leveraging networking capacity:

> "The teachers seemed as if they had gotten closer. There was more open and relaxed communication between teachers who came from the same school" (Research Journal, 29 July 2019).
>
> "The teachers seemed engaged and interactive throughout the day's proceeding. The teachers worked well in their groups and gave insightful answers to the questions which were presented well to the bigger group" (Research Journal, 21 September 2019).

4.3.3.4 Sub-Theme 1.4: Valuing Positive Family Relationships

Process intervention data indicated that positive relationships for facilitating resilience are mutually empathic and responsive (Gu, 2018). Isithebe mobilised social support by enabling teachers to value positive family relationships inside and outside the school environment, as illustrated by the following excerpts.

> "Isithebe also showed how important my family relationships are. I like to share what happened in Isithebe with my family because it brings us closer" (School B, May meeting).

"It also helps us have a bond with family relationships; it gives us that bond" (School C, July meeting).

"And it also strengthens relationships between teachers because sometimes we do have that social relationship, so it strengthens that part" (School D, July meeting).

"So, it is very important because it teaches you to serve yourself as well and also appreciate the relationships you have because those are important." (School D, July meeting).

"I remember building something like a castle with children by the seaside playing with sand, and I related that to my family, and I thought that sometimes it's good to have that quality time with your kids or with family" (School C, July meeting).

Figure 4.2

Photographs 57-60: Clay modelling activity during pre-intervention training

Photos by the researcher with permission from the participants

The one activity, we had to make a beautiful box, and we had to put messages inside. The one activity was to call your friend you have not talked to in a while, and then I got

an invite. My friend invited me to come see her get ordained as a pastor, and we met up to go for coffee at Mugg & Bean. (School A, post-intervention)

Figure 4.3

Photographs 60-61: Photo of a teacher with her three children shared on the WhatsApp group

Photos by the researcher with permission from the participants

In addition, extracts like the following from my researcher journal act as support for the development of relationships between the teachers throughout the intervention.

> Today in the venue, there is a buzz and a vibe between the teachers. Even before we started with our activity, the teachers were interacting with one another freely – talking and joking comfortably amongst themselves like old friends. (Research Journal, 29 July 2019)

Photographs 62 to 67 are from teacher-researcher joint meetings and teacher meetings sent via the WhatsApp group.

Figure 4.4

Photographs 62-67: Pictures of Isithebe teacher meetings




Photos by the researcher with permission from the participants

4.3.4 Theme 2: Providing Social Support as Resilience-Enabling Resource for Teachers

During post-intervention data collection, teachers reported social support as resilience-enabling "when they were able to give social support to students, colleagues and members of the school-community in need of their inputs" (Ebersöhn et al., 2020, p. 32). Process data showed evidence of implicit social support, but was silent on instances of explicit social support. Theme 2 is broken down into two subthemes, namely, Subtheme 2.1. "Providing *implicit* social support to learners, co-workers and school-community members" and Subtheme 2.2. "Providing *explicit* social support to learners and school-community members".

4.3.4.1 Sub-Theme 2.1: Providing Implicit Social Support to Learners, Co-Workers and School-Community Members

Implicit social support symbolises people benefitting from social connectedness by obtaining or providing emotional comfort to others in their lives (Ebersöhn et al., 2020; Framke et al., 2019, Taylor, 2011). Teacher-reported examples of *providing* implicit social support to both learners and co-workers included "tolerance, listening, good communication skills, being caring, loving, sharing and bearing more than the role of a colleague" (Ebersöhn et al., 2020, p. 32), as indicated by the following *post-intervention* excerpts:

> "You must avail yourself at all times, whenever you are needed, you must make sure you are available" (School D, post-intervention).

> Some of them come to school with hungry stomachs; then you have to be there to give a shoulder to cry on, to help support the learner so that they feel comfortable to be able to work with their peers. (School F, post-intervention).

> But if you are a good teacher, you listen to any story that they share with you, to any situation that they bring forth to you. And whenever you come to school in the morning, the way you great a learner it brings about a smile and changes the whole situation. That child becomes happy, and for the whole day you see that child coming to… touching you and greeting you. (School F, post-intervention)

> You must be willing to lend an ear whenever there is a problem. You must also try for that harmony and unity. You must also be empathic and sympathetic. What helps you to continue being a teacher is that upholding of morals and principles. (School D, post-intervention).

4.3.4.2 Sub-Theme 2.2: Providing Explicit Social Support to Learners and School-Community Members

"Explicit social support signifies instances where people actively draw on social networks for support to provide concrete services to others facing challenges" (Ebersöhn et al., 2020, p. 32). Teacher reports of providing explicit social support in *post-intervention* data include examples of explicit social support to learners and school-community institutions, as demonstrated by the following excerpts:

> Some children are alone in their houses. Children who are 13-14 years are living alone, there is no one there to look after them, and they do not have food at home, now it becomes the responsibility of the school. (School A, post-intervention)

> "The Department of Education does not adequately address all the challenges, we have a lot of infrastructure problems that never get fixed. So, then we have to go out and get the sources for ourselves" (School D, post-intervention).

4.3.5 Theme 3: Receiving Social Support as Resilience-Enabling Resource for Teachers

For relationships to be mutually beneficial, teachers need to receive and provide implicit social support perceived as beneficial to them (Le Cornu, 2013; Taylor, 2011). Post-intervention data

included teachers receiving both implicit and explicit social support, which was reported as a resilience-enabling resource.

4.3.5.1 Sub-Theme 3.1: Receiving Implicit Social Support from Co-Workers, the School-Community, Friends and Family

Implicit social support was defined as people benefiting from SC by receiving emotional comfort from others in their lives (Ebersöhn, 2019; Taylor, 2011). *Process and post-intervention* data included incidents of receiving implicit social support from co-workers and the school community as resilience enabling.

> "Sometimes you feel like you don't want to go to school because of some certain things, but what keeps you going is that support. Sometimes you get that support from your family, from your co-workers and from your friends" (School D, post-intervention).

> It also improved the relations amongst the teachers because we are able to understand each other in a more comfortable way and we are able to communicate more open and freely, unlike when we are in the classroom or when we are in a staff meeting. (School D, post-intervention).

4.3.5.2 Sub-Theme 3.2: Receiving Explicit Social Support from Co-Workers and the School-Community

Challenged educational contexts characterised by structural disparity function through communal societies and smart partnerships sharing costs and incomes in financial undertakings (Ebersöhn, 2019). *Post-intervention* data provided evidence of teacher reports on receiving explicit social support. "In this regard teachers mentioned receiving explicit social support from colleagues and the school-community as resilience-enabling" (Ebersöhn et al., 2020, p. 35), as evident in the following excerpts:

> "Whenever one of us has a challenge, like our children are sick or we have a funeral, we can ask our colleagues for help" (School D, post-intervention).

> As a teacher, it is very important to have relationships with stakeholders. We have volunteers that come to school to help us clean up the school grounds. We were struggling with the water, and then we got help from the community. (School B, post-intervention)

> The community also planted trees around our school, and we get sponsors to provide us with fencing for around the school. We also get donations for school uniforms for children in need. We also have social workers at our school that help us with learners who have behavioural problems and learning problems. (School C, post-intervention)

> The stakeholders and volunteers help a lot. For example, the sunshine foundation comes to help our learners get reading skills… the other one comes to help us with computer skills. We also have ABSA [a South African bank] that brings whiteboards to our schools, so now we are moving away from chalkboards to only be using whiteboards". (School D, post-intervention).

4.4 Integrating Quantitative and Qualitative SC Results

4.4.1 Introduction

The following section summarises QUAN+QUAL results over study phases: pre-intervention, process data, and post-intervention in Section 5.4.2. In Section 5.4.3, I describe the conceptual definitions of the SC questionnaire scales and corresponding qualitative sub-themes.

4.4.2 MMR SC Results

In this section, I propose that (i) the SC of teachers in a challenged context is high irrespective of an intervention; (ii) participation in an SC intervention increased teachers' reported ability to trust others (iii) an SC intervention enhanced competencies aligned to SC; and (iv) when teachers participate in an SC intervention their repertoire for providing and receiving both implicit and explicit social support to learners, co-workers and the school-community is expanded.

Irrespective of an SC intervention, South African teachers working in a challenged space displayed high SC, valued building relationships and needed relatedness and belonging. High SC was not unexpected as research with South African teachers has highlighted Afrocentric indigenous knowledge systems in spaces where the need is high and distress is viewed as a collective challenge (De Gouveia, 2015; Ebersöhn, 2019). In a challenged context, a preference for SC values resonates with the "Ubuntu" Afrocentric identity that implies that teachers band together in times of distress to boost collective well-being.

Post-intervention quantitative results showed a statistically significant increase in participants' overall score for SC. Scales 1, 2, and 3 showed no significant difference in pre- and post-intervention results. There was a significant increase in Scale 4 (degree to which a person trusts other people in their community). Trust was the only scale that increased significantly between pre- and post-intervention and reflected qualitative sub-themes Sub-theme 1.3: "Leveraging networking capacity" and Sub-theme 1.4: "Valuing positive family relationships". Relational trust entails much more than just making school staff feel good about their work environment and co-workers; schools should build relational trust in day-to-day social exchanges (Brunetti, 2006; Bryk & Schneider, 2003; Castro et al., 2010). The facilitation

of relational trust in the day-to-day exchanges of teachers across different systems mobilised social support by activating positive emotions in positive relationships.

Throughout the intervention, teachers continued to report on the value of building relationships, and a need for relatedness and belonging. In addition to this awareness and appreciation of the SC's benefits (rather than social isolation), teachers reported that participation in the intervention benefited their SC competence. *Process qualitative* data revealed that teachers reported participation in Isithebe enabled their SC competencies, such as the capacity for bonding within and across school social networks, leveraging school-community networks, and valuing positive family relationships. Enhanced SC competencies are plausibly reflected in quantitative increases in teachers' reported ability to trust others. *Process* data was "silent on teachers ascribing meaning to giving implicit social support to people in distal relationships (friends, family and school-community members) as relevant for teacher resilience" (Ebersöhn et al., 2020, p. 33).

Post-intervention qualitative data was "rich with incidents of providing implicit social support to learners and co-workers, which were reportedly resilience-enabling for teachers – supporting them to remain in the profession, experience well-being and provide quality education" (Ebersöhn et al., 2020, p. 33). "Qualitative results indicate that teachers use a range of social connectedness competences to give and receive implicit and explicit social support across relational systems" (Ebersöhn et al., 2020, p. 2). An SC intervention leads to more teacher reports on teachers providing implicit and explicit social support to learners and the school community and teachers receiving explicit and implicit social support from co-workers and the school community.

Table 4.9

Quantitative SC Scales and Corresponding Links to Qualitative Sub-Themes

Qualitative sub-themes and inclusion criteria	Pre-intervention qualitative sub-theme	Post-intervention qualitative sub-theme	Process qualitative sub-theme
REPSSI SC questionnaire scale and definition: Building relationships *"[F]ocuses on the self-reported degree of skill one has in building relationships in various areas of life" (Ebersöhn et al., 2020, p. 26).*			
Sub-theme 1.2: "Teachers Bonding Within and Across School Social Networks" Instances where teachers spoke about fostering affiliation and association between teachers within and across schools and this serving as a platform to access social networks between schools and stakeholders.	No data available	Reported	Reported
Sub-theme 1.3: "Leveraging School-Community Networks" Collaborating with individuals and organisations to provide psychosocial support to learners and the community.	No data available	Reported	Silent
Sub-theme 2.2: "Providing Explicit Social Support to Learners, Co-workers and School-community members". Instances where teachers reported examples of providing explicit social support that include: "tolerance, listening, good communication skills, being caring, loving, sharing and bearing more than the role of a colleague" (Ebersöhn et al., 2020, p. 32).	No data available	Reported	Silent

Qualitative sub-themes and inclusion criteria	Pre-intervention qualitative sub-theme	Post-intervention qualitative sub-theme	Process qualitative sub-theme
Sub-theme 3.2: "Receiving Explicit Social Support from Co-workers and the School-community, and Friends and Family". Instances where teachers reported examples of receiving *implicit* social support that include: "tolerance, listening, good communication skills, being caring, loving, sharing and bearing more than the role of a colleague" (Ebersöhn et al., 2020, p.32).	No data available	Reported	Silent
REPSSI SC questionnaire scale and definition: Social support (Need for relatedness) *"[R]eveals the extent of social support an individual has in both private and communal spheres" (Ebersöhn et al., 2020, p. 26).*			
Sub-theme 1.1: "Awareness of SC". Instances where teachers spoke about the "advantages of social inclusion rather than isolation" (Ebersöhn et al., 2020, p. 36).	No data available	Silent	Reported
Sub-theme 2.1. "Providing *implicit* social support to learners, co-workers and school-community members". Instances where teachers reported examples of *providing* implicit social support that include: "tolerance, listening, good communication skills, being caring, loving, sharing and bearing more than the role of a colleague" (Ebersöhn et al., 2020, p. 32).	No data available	Reported	Silent
Sub-theme 6.1: "Receiving *implicit* social support from co-workers and the school-community, and friends and family". Instances where teachers reported examples of *receiving* implicit social support that include: "tolerance, listening, good communication skills, being caring, loving, sharing and bearing more than the role of a colleague" (Ebersöhn et al., 2020, p. 32).	No data available	Reported	Silent

Qualitative sub-themes and inclusion criteria	Pre-intervention qualitative sub-theme	Post-intervention qualitative sub-theme	Process qualitative sub-theme
REPSSI SC Questionnaire Scale and Definition: Belonging vs Loneliness/Isolation (social isolation) *"[P]rovides insight on an individual's degree of social isolation" (Ebersöhn et al., 2020, p. 26).*			
Sub-theme 1.1: "Awareness of SC". Instances where teachers spoke about the "advantages of social inclusion rather than isolation" (Ebersöhn et al., 2020, p. 36).	No data available	Silent	Reported
Sub-theme 2.1: "Receiving *implicit* social support from co-workers and the school-community, and friends and family". Instances where teachers reported examples of receiving *implicit* social support that include: "tolerance, listening, good communication skills, being caring, loving, sharing and bearing more than the role of a colleague" (Ebersöhn et al., 2020, p. 32).	No data available	Reported	Silent
REPSSI SC questionnaire scale and definition: Trusted connections *"[F]ocuses on the presence of trusted individuals in a person's life" (Ebersöhn et al., 2020, p. 26).*			
Sub-theme 2.1: "Receiving implicit social support from co-workers and the school-community, and friends and family". Instances where teachers reported examples of receiving *implicit* social support that include: "tolerance, listening, good communication skills, being caring, loving, sharing and bearing more than the role of a colleague" (Ebersöhn et al., 2020, p. 32).	No data available	Reported	Silent

Qualitative sub-themes and inclusion criteria	Pre-intervention qualitative sub-theme	Post-intervention qualitative sub-theme	Process qualitative sub-theme
Sub-theme 1.4: "Valuing Positive Family Relationships" SC helped teachers value positive family relationships between teachers and family members.	No data available	Silent	Reported

4.4.3 Literature Control

4.4.3.1 Introduction

In the previous section of this chapter, I presented results in terms of themes and sub-themes from process data and post-intervention data collection points. After that, I showed how QUAN+QUAL results interface by linking the REPSSI SC Questionnaire scales to the occurrence of qualitative sub-themes. In this section of the chapter, I formulate arguments for each sub-theme by positioning these arguments within existing and relevant literature to establish how my study's results compare to what is known regarding SC as relevant for TR in challenged spaces. I discuss the results of my study concerning confirming literature and reflecting on contradictory literature. Each section also discusses silences in data and novel insights on evidence for SC interventions to support TR in challenged contexts.

4.4.3.2 Sub-Theme 1.1: Awareness of SC

Recent research highlights the importance of SC for TR both globally (Bernard et al., 2018; Frelin & Fransson, 2017; Gu, 2018; Schmidt et al., 2017; Stavrova & Luhmann, 2016) and in South Africa (Ebersöhn, 2019; Theron, 2018). Awareness of the benefits of SC is essential for teachers to perceive SC and relational resilience as a worthwhile protective resource to draw from despite hardship (Rensburg et al., 2018; Theron, 2018). Research on the relational resilience of teachers has established that teachers' social interactions, both within and outside of the classroom, are crucial in providing them with the resources they need to prosper in their personal and professional lives (Frelin & Fransson, 2017; Gu, 2014, 2018; Mansfield et al., 2016).

Studies on occupational well-being have found a strong link between SC and occupational well-being (Di Fabio & Kenny, 2016; Fiorilli et al., 2019). Individuals who forge more positive relationships are more likely to perceive everyday challenges as manageable, more likely to experience job satisfaction, and experience more positive than negative emotions (Di Fabio & Kenny, 2016; Santisi et al., 2014). Several studies have argued for a multilevel approach to promote social support from management and co-workers to reduce teacher stress and improve occupational well-being (Fiorilli et al., 2019; Proeschold-Bell et al., 2021; Wu et al., 2020). Literature on the benefits of SC for occupational well-being support that increased awareness of the SC of "Isithebe" teachers given an SC intervention can potentially enhance other competencies aligned to SC important for occupational well-being. The findings of my study confirm the significance of SC for teachers in challenged contexts and highlight the benefits of SC interventions like "Isithebe" that deliberately foster awareness of the benefits of SC and other aligned competencies discussed in subsequent subthemes.

Given the associated multiple and chronic disruptions faced in this postcolonial context, researchers may be tempted to focus research on the challenges teachers face in

their educational landscapes. The literature suggests that South African schools may not have the resources to address challenges to learning, and teachers seem ill-equipped to provide quality education (Bryan, 2005; Du Plessis & Mestry, 2019; Milner & Khoza, 2008; Mojapelo, 2018). However, in contrast to this assumption, teachers in this sample reported many examples of how SC drives them to deliver quality education despite these challenges. Quantitative pre-intervention results indicated that the SC of the teachers in state peri-urban primary schools in challenged contexts was high. Based on findings from studies with teachers in challenged South African contexts, the RRR theory suggests that the SC of teachers in challenged contexts will be high as teachers will "flock" together in times of collective distress (Ebersöhn, 2019). Therefore, it was not unexpected that the SC of teachers was high at pre-intervention. RRR proposes that high levels of SC "mirrors culturally salient epistemologies inherent to interdependent worldviews, including Afrocentric indigenous knowledge systems centred on 'Ubuntu'" (Ebersöhn et al., 2020, p. 25).

Results from process and post-intervention data collection indicate that, "of a host of available resilience-enabling pathways, participating teachers especially foregrounded social support as a significant pathway to resilience" (Ebersöhn et al., 2020, p. 32). A novel insight generated at post-intervention data collection indicated an increased awareness that the benefits of SC have the potential to create opportunities for teachers to engage in reciprocal and beneficial relationships that appeared to be resilience-enabling.

4.4.3.3 Sub-Theme 1.2: Teachers Bonding Within and Across School Social Networks

"It is widely acknowledged that teachers are able to cope with workplace challenges if they experience a positive school culture that is collaborative and where teachers support each other, display trust and openness, and routine help is available" (Papatraianou & Le Cornu, 2014, p. 102). Social capital has been acknowledged as having a significant effect on teacher well-being, and leveraging social capital increases a sense of belonging and fosters teacher resilience (Roffey, 2012; Sullivan & Johnson, 2012). "The concept of workplace social capital refers to actual and potential resources in cooperative relations between employees at the workplace" (Framke et al., 2019, p. 884), and functions as the gateway to resources accessed through social networks and social ties among colleagues (Framke et al., 2019).

Several studies have found a correlation between favourable social networks at schools and teacher well-being (Barbieri et al., 2019; Ouellette et al.,2018; Richards et al., 2018; Schoeps et al., 2019). It's not until more recently that studies have observed the association between the school's organisational health and teacher well-being (Barbieri et al., 2019). Given the highly demanding nature of teaching as an occupation, positive work environments and workplace activities can make teachers feel more important and increase

teacher occupational well-being (Barbieri et al., 2019; Framke et al., 2019; Richards et al., 2018).

Contextual resources that affect teacher resilience include the impact of school structures and leadership (Boyden, 2013), with principals being identified as having a significant role in creating healthy work environments (Proeschold-Bell et al., 2021). “Teachers frequently commented that principals’ recognising them in front of their peers or publicly for their good work improved their well-being” (Proeschold-Bell et al., 2021, p. 45). In addition, relationships with other teaching colleagues and parents (Brunetti, 2006; Frelin & Fransson, 2017), and positive parent-teacher interactions have been reported as boosting teacher morale (Proeschold-Bell et al., 2021). Positive relationships with learners (Day & Gu, 2014; Proeschold-Bell et al., 2021) have also been identified as important for teacher well-being and resilience.

Ouellette et al. (2018). found that school organisational health was the strongest predictor of stress and satisfaction among teachers in low-income schools. Furthermore, several studies suggested that positive organisational school culture between teachers promotes a better work environment, teacher learning and PD (Framke et al., 2019; Hollweck, 2019; Wu et al., 2020). In education, communities of practice globally have been shown to play a role in teacher training (Jimenez-Silva & Olson, 2012) and promote teacher professional development (Baek & Barab, 2005; Bernard et al., 2018; Patton & Parker, 2017). Isithebe assisted teachers in communicating and sharing ideas, which corresponds to research on communities of practice that have shown many benefits in education. These benefits include collective learning, teacher training and promoting teacher PD (Baek & Barab, 2005; Bernard et al., 2018; Patton & Parker, 2017). Isithebe data indicates that teachers benefited both personally and professionally from the intervention as “Isithebe” created a community of practice between teachers and played a role in strengthening their teaching community between teachers at schools and between teachers across schools.

Literature highlights the significance of a positive organisational social environment to enhance teacher occupational well-being, particularly in schools in challenged contexts. TR research in challenged contexts affirms that “relationships constitute key drivers for the developmental, adaptive processes that are fundamental to transactional-ecological resilience processes” (Ebersöhn, 2019, p. 174). Despite this, Proeschold-Bell et al. (2021) report a notable absence of intervention studies, especially, interventions from Africa in recent years.

“At the interpersonal level of the socioecological framework, relationships between teachers and colleagues emerged as important in intervention studies” (Proeschold-Bell et al., 2021, p. 29). As such, teacher intervention research has focused on both individual teaching practices (such as emotional regulation and mindfulness interventions) and interpersonal interventions to improve relationships between teachers and learners. The findings from my

study show that “Isithebe” assisted in creating a positive organisational social environment by fostering affiliation and association between teachers within and across schools' social networks.

Teachers in this sample reported that Isithebe facilitated positive emotions by creating a safe place for teachers to debrief, joke and experience positive emotions at school. Teachers reported that coming together to engage in companionship and creativity around art was therapeutic and emotionally rewarding for them. Isithebe facilitated positive teacher emotion by promoting positive interactions between colleagues. Novel insights from this sub-theme indicate the benefits of art activities for teachers working in high-risk environments to facilitate social connection and professional networking enabled through fellowship and relaxation.

4.4.3.4 Sub-Theme 1.3: Leveraging School-Community Networks

Access to services and infrastructure are limited in challenged educational contexts like South Africa, making unity and cooperation among the community’s people and stakeholders crucial for resilience processes. Therefore, teachers working in contexts with limited resources rely heavily on interventions that support resilience through collaborative partnerships with businesses, nurses, social workers, libraries, hospitals, clinics, faith-based organisations, and welfare resources (Ebersöhn, 2019).

Participants mentioned churches as places where the greater social circle may gather, feel validated based on similar beliefs, and be inspired to engage in shared social support agendas (Ebersöhn, 2019). Elders and young people in urban and rural settings appear to favour social tactics that promote healthy adjustment by responding to spiritual and human care and experiencing a sense of spiritual and social togetherness, according to an Afrocentric worldview (De Gouveia, 2015; Theron, 2016).

Additionally, previous South African research on TR has found that teachers formed partnerships with district officials, owners of small businesses and other schools to obtain additional resources (Ebersöhn, 2019). Leveraging cultural resources of social support promises social welfare policy benefits that include “power-sharing between citizens and governments, and a positive effect on the capacity of a society to proficiently deliver necessary goods for economic impact” (Ebersöhn, 2019, p. 183).

“Isithebe” assisted in creating a positive organisational social environment by fostering affiliation and association between teachers within and across schools' social networks and served as a platform to access social networks between schools and stakeholders. Additionally, high-risk school settings require teachers to use interpersonal pathways evidenced as group effectiveness skills (group communication, roles and responsibilities, positive group dynamics) to support resilience (Ebersöhn et al., 2015). The findings of my study show that the “Isithebe” intervention format to create intentional, non-formal spaces of

social interaction between teachers fostered a sense of community and positively impacted teacher networking capacity.

Sub-theme 1.3: "Leveraging School-Community Networks" encapsulates the relationships teachers develop in their social context outside of their school setting as critical to providing them with the resources they need to thrive in their personal and occupational environment. Leveraging networking capacity was defined as collaborating with individuals and organisations to offer psychosocial support to learners (Synergos, 2017). Furthermore, "a high level of workplace social capital is characterised, for example, by a workplace climate of social support, mutual trust, and constructive cooperative relations between employees" (Framke et al., 2019, p. 884). My study showed that "Isithebe" interactions included open communication outside of formal staff-related interactions, with more opportunities to discuss challenges and improve problem-solving, which potentially contributed to constructive, cooperative relations between teachers and community members.

4.4.3.5 Sub-Theme 1.4: Valuing Positive Family Relationships

Another enhanced SC competence "Isithebe" teachers demonstrated was their valuing of positive family relationships. Contextual resources indicate the critical role of relationships (including family, friends and colleagues) in the resilience process (Mansfield et al., 2014). This finding is consistent with studies that show TR is fundamentally a relational process (Gu, 2018; Le Cornu, 2013), and teachers are most confident when they can sustain and be sustained by connections (Gu, 2014). My study also showed that an SC intervention like "Isithebe" could boost social support by encouraging teachers to appreciate positive relationships inside and outside the classroom.

Aside from formal processes that enhance TR, such as mentoring and PD, family relationships constitute informal processes shown as important for TR (Papatraianou & Le Cornu, 2014). Many teachers turn to their families when they feel professionally exhausted and need emotional support (Fiorilli et al., 2019). Having a supportive family and spouse can increase teacher commitment and enhance teachers' capacity to cope with workplace challenges. The teachers pointed out that showing support can entail partners not expressing displeasure if their teacher spouse works from home, or "having a partner who insists that their teacher spouse adopts a work-life balance, ensuring weekends are spent interacting with family" (Papatraianou & Le Cornu, 2014, p. 102).

The literature has highlighted that distressed and overwhelmed teachers may lack emotional availability and withdraw from relationships with others close to them (Clement, 2017; Fleming et al., 2013). A teacher's strong work engagement and teaching responsibility may result in a lack of work-life balance (e.g., limited time for personal, social and family life). Such an imbalance increases the chances of stress and burnout lowering the teacher's morale

and well-being and even creating a likelihood of teacher attrition (Fleming et al., 2013). Therefore, resilience as a dispositional tendency to experience positive relationships could act as a counterbalance to negative emotional experiences that are common in the teaching profession (Day & Gu, 2007; Pretsch et al., 2012). Furthermore, Proeschold-Bell et al. (2021) recommend that teachers protect personal or family time by having some time set aside that is "off-limits" for work. TR increases on the *teacher emotion* scale were reflected in post-intervention qualitative Sub-theme 1.4: "Valuing Positive Family Relationships." Participating teachers reported that "Isithebe" gatherings and activities created a space for positive self-reflection, and the focus on relationship building helped teachers value positive family relationships.

4.4.3.6 Sub-Theme 2.1: Providing Implicit Social Support to Learners, Co-Workers and School-Community Members

This sub-theme explored teachers providing implicit social support to learners, co-workers and school-community members "through good communication, tolerance, listening, good communication skills, being caring, loving, sharing and bearing more than the role of a colleague" (Ebersöhn et al., 2020, p. 32). "Studies suggested that compassion and subjective happiness at work can promote feelings which generate positive teachers' attitudes and better work outcomes" (Proeschold-Bell et al., 2021, p. 27). Implicit social support denotes that people benefit from SC by receiving or providing emotional comfort to others in their lives (Ebersöhn, 2019; Taylor, 2011). Providing implicit social support to learners, co-workers and school community members is linked to Category 1.2.3. "Showing compassion for learners enables quality education" as a T&L competency relevant for teachers working in challenged contexts (discussed in Section 5.3.2.2). The data was silent on teachers ascribing meaning to providing implicit social support to people in distal relationships (friends, family and school-community members) as relevant for TR.

Receiving and providing "social support may be seen as a behavioural expression of social connectedness beliefs and practices synonymous with an Afrocentric cultural worldview" (Ebersöhn et al., 2020, p. 32). Post-intervention instances of teachers providing implicit support to learners, co-workers and community members align with cultural predispositions to be responsive to vulnerability in the space of extreme inequality. It enables community members to identify where social support is needed and allows people to mobilise social resources accordingly (Ebersöhn, 2019). The challenged educational landscape of South Africa requires teachers to take on multiple roles and responsibilities. Ideally, responses to social needs at a community level should be visible across an array of social sectors; however, the education sector is expected to fulfil a leading role in this regard (Ferreira et al., 2010; Mansfield et al., 2018).

"Decades of educational well-being intervention research have demonstrated the profound importance of cultivating a psychologically safe and healthy classroom climate on child development and learning outcomes" (Bradley et al., 2018., p. 246). This point became evident in Sub-theme 2.1 as teachers commented that the learners they teach come to school hungry and come from homes with many challenges, therefore making the care they receive from teachers particularly important. A novel insight generated from Sub-theme 2.1 is that teachers working in challenged contexts have heightened capacities to give implicit social support to co-workers and learners due to chronic and cumulative challenges that impact the lives of the children and teachers with which they work.

4.4.3.7 Sub-Theme 2.2. Providing Explicit Social Support to Learners and School-Community Members

Explicit social support signifies "instances where people actively draw on social networks for support to provide concrete services to others facing challenges" (Ebersöhn et al., 2020, p. 32). Social resources are informal relationships within a community that include the utilisation of social resources such as implicit emotional support (discussed in Sub-theme 2.1), as well as more explicit reciprocal gifts and sharing costs and incomes in financial undertakings (Ebersöhn 2019; Kuku et al., 2013). "The 'flocking' practice of reciprocal donations denote providing resources to alleviate hardship and can include bartering. Resources that are exchanged to lessen privation include material resources, financial donations, bartering resources, giving time, labour and attendance, and accessing services for families or individuals" (Ebersöhn, 2019, p. 19). As discussed in Sub-Theme 1.3, post-intervention data shows reports of teachers leveraging school-community networks as they share examples of providing explicit social support to learners and school-community institutions.

Examples of explicit social support in challenged contexts refer to instances of "flocking" to mitigate limited infrastructure and access to basic resources. "Lack of access to basic services mean that people often 'flock' together to manage access to clean water, to gather firewood for heat and cooking, to travel and live in a safe home" (Ebersöhn, 2019, p. 19). RRR theory emphasises the need not to demand more than what is available. Instead, explicit social support aims to be as creative as possible with what is available when helping (Ebersöhn, 2019). In this way, the concept of social capital emphasises the idea that socially connected people or groups can use other types of capital (such as financial resources, knowledge, skills, and abilities) more effectively to achieve their goals (Oh et al., 2004).

Research on social support management in South African schools found that flexibility and open communication strategies enabled different role players to manage resources and mobilise assets by linking them through social networks (Ebersöhn & Loots, 2017; Gu & Day,

2018). This finding aligns with qualitative data that outlines teacher reports of how “Isithebe” helped improve their penchant for providing explicit social support by encouraging them and enabling them to create their own networks with volunteers and churches in the community. The data was silent on teachers providing explicit social support to co-workers, friends and family as relevant for TR.

4.4.3.8 Sub-Theme 3.1: Receiving Implicit Social Support from Co-Workers and the School-Community, and Friends and Family

Workplace social support has been linked to occupational well-being, job satisfaction, and engagement (Wu et al., 2020). Teachers who received more social support from their colleagues were more likely to express positive emotions, have higher job satisfaction, reduced stress levels, better relationships with colleagues and find more meaning in their work (Fouché et al., 2017; Wu et al., 2020).

Sub-theme 2.1 explored how implicit social support was defined as people benefiting from SC by receiving emotional comfort from others in their lives (Ebersöhn, 2019; Taylor, 2011). This account resonated with previous literature that acknowledges that for relationships to be mutually beneficial, teachers need to give and receive intrinsic social support perceived as beneficial to them (Fouché et al., 2017; Le Cornu, 2013; Taylor, 2011). Additionally, “by reinforcing other people’s competence to provide required assistance and support in different situations could promote well-being” (Wu et al., 2020, p. 13). Process and post-intervention data were rich with occurrences of receiving intrinsic social support from the school community co-workers and friends and family. “‘Family and friends’ in relation to social support were only mentioned regarding receiving implicit social support – indicating the meaningful protective resource of significant relationships outside of the workplace to reinforce teacher resilience” (Ebersöhn et al., 2020, p. 35). The data is “silent on teachers ascribing meaning to giving implicit social support to people in distal relationships (friends, family and school-community members) as relevant for teacher resilience” (Ebersöhn et al., 2020, p. 33).

4.4.3.9 Sub-Theme 3.2: Receiving Explicit Social Support from Co-Workers and the School-Community

Extrinsic social support was defined as people “actively drawing on social networks for support to provide concrete services to others facing challenge” (Ebersöhn et al., 2020, p. 32). This point corresponds with previous research on pathways to resilience in challenged contexts characterised by structural disparity that have adapted to function through communal societies, smart partnerships sharing costs and incomes in financial undertakings (Ebersöhn, 2019). Resilience literature suggests that when teachers have trouble dealing with the variety of stressors in the school environment, receiving support from others functions is a significant coping mechanism (Castro et al., 2010; Sharplin et al., 2011; Tait, 2008). “Isithebe” enhanced

teacher proclivity to *provide* social support and *receive* social support, which is resilience enabling. The data was silent on teachers providing explicit social support to co-workers, friends and family as relevant for TR.

"Evidence of teacher reports on receiving explicit social support was only present in post-intervention data" (Ebersöhn et al., 2020, p. 32), indicating participation in an SC intervention potentially increased teacher's ability for receiving social support from co-workers, loved ones and community members. Reciprocity has been identified in the literature as an important mechanism for developing social capital in the community. Society generally recognises it as a moral norm based on exchanges between people for mutual benefit. (Roffey, 2012). Reciprocity has been acknowledged in international teacher resilience literature as an important influence on teacher relationships (Johnson et al., 2015). Le Cornu (2013) and McNally and Blake (2010) found reciprocity important in relationships both with colleagues and with students and thus an enabling factor for resilience. In South African research, reciprocity with one's socio-ecological environment (Theron, 2013; Wood et al., 2012) and one's neighbours and social community (Ebersöhn, 2019) have been identified as important for TR.

Post-intervention qualitative data outlined teacher reports of how "Isithebe" helped improve their proclivity for providing and receiving explicit social support by encouraging them and enabling them to create their own networks with volunteers and churches in the community. This, in turn, strengthened their already existing proclivity for SC and communal exchange of resources inherent to interdependent worldviews while increasing the ability to provide and *receive* social support.

4.5 Conclusion

In Chapter 4, I presented a quantitative, qualitative and integrated analysis of SC findings and addressed my study's SRQ2. Following the Isithebe SC Intervention, both QUAN+QUAL data showed an increase in SC scores of participating teachers. Despite living and teaching in resource-constrained settings characterised by much adversity, the teachers in the sample showed a high level of SC. This finding indicates the ability of teachers to resile despite challenged circumstances through relational pathways, as indicated extensively in Global North research. However, it is also possible to conclude that the teachers' SC was high due to being situated in resource-constrained Global South contexts. They display high levels of SC in times of collective distress by flocking together to share resilience-enabling resources.

Qualitative findings indicate that teachers use a range of SC competencies to give and provide implicit and explicit social support across relational systems. Teachers also mentioned other enhanced competencies aligned to SC, such as the capacity for bonding within and across school social networks, leveraging school-community networks and valuing positive,

family relationships. Chapters 5 answers SRQ2, “How does TR compare pre- and post-intervention?” to discuss how SC functioned as a pertinent pathway to TR within a challenged educational context.

5 Chapter Five: Teacher Resilience Research Findings

5.1 Introduction

In the previous chapter, I reported on SC quantitative results, qualitative findings and integrated QUAN+QUAL results and findings. The SC findings indicate that a social connectedness intervention enables awareness of SC, teachers bonding within and across school social networks, leveraging school-community networks, and giving and providing social support.

As I highlight in Table 5.1, in this chapter, I share the MMR results to address SRQ2, “How does TR compare pre and post-intervention?”, and SRQ3: “To what extent did the SC intervention with teachers in peri-urban primary schools enable TR?”

Section 5.2 reports on quantitative pre- and post-intervention results of the ENTRÉE TR questionnaire. Section 5.3 reports on qualitative data with themes and sub-themes generated across pre- process and post-intervention data collection points. Section 5.5 presents an integration of pre- and post-intervention QUAN+QUAL results to discuss TR based on an SC intervention. The chapter culminates in a section considering existing literature on TR to distil findings for SRQ2, “How does TR compare pre- and post-intervention?” and SRQ3: “To what extent did the SC intervention with teachers in peri-urban primary schools enable TR?”

Table 5.1

Outline of Chapter 5: TR Research Findings

SRQ	Relevant chapter section	Documented data source	Data analysis
SRQ2: "How does TR compare pre- and post-intervention?"	5.2. Quantitative Pre- and Post-Intervention TR Results 5.2.1 Introduction 5.2.2. Reliability of the ENTRÉE TR Questionnaire 5.2.3. ENTRÉE TR Questionnaire Descriptive Item-Level Statistics 5.2.5. ENTRÉE TR Pre- and Post-Intervention Quantitative Results	*Quantitative* Completed questionnaires - selected items, TR ENTRÉE scale - Appendix B.	*Quantitative* Not normally distributed – WSR test used to compare the pre- and post-intervention scores.
	5.3. Qualitative TR Results 5.3.1. Introduction 5.3.2. Qualitative TR Results 5.3.3. Theme 1: Enablers of Quality Education in Challenged Contexts 5.3.3.1. Sub-theme 1.1: Teacher Professionalism Enables Quality Education 5.3.3.2. Sub-theme 1.2: T&L Competencies Enable Quality Education	*Qualitative* Verbatim transcriptions of audio recorded teacher-group PRA presentations.	*Qualitative* Within case thematic inductive analysis of transcriptions.

	5.3.4. Theme 2: Enablers of Teacher Occupational Well-being in Challenged Contexts 5.3.4.1. Sub-theme 2.1: Acknowledgement of Occupational Inputs Enable Occupational Well-being 5.3.4.2. Sub-theme 2.2: Experiencing Occupational Purpose Enables Occupational Well-being 5.3.5.3. Social Connection Enables Teacher Occupational Well-being		
	5.4. Integrating QUAN+QUAL TR Results 5.4.1 Introduction 5.4.2 MMR TR Results 5.4.3. TR Questionnaire Scales and Corresponding Links to Qualitative Sub-Themes	*Quantitative* Completed questionnaires - selected items, TR ENTRÉE scale - - Appendix B.	*Qualitative* ENTRÉE scales and sub-themes are deductively analysed to link TR scales to qualitative sub-themes

SRQ3: “To what extent did the SC intervention with teachers in peri-urban primary schools enable TR?”	5.4. Literature Control
	5.4.1. Introduction
	5.4.2. Teacher Professionalism Enables Quality Education
	5.4.3. T&L Competencies Enable Quality Education
	5.4.4. Leveraging Social Networks to Enable Quality Education
	5.4.5. A Social Connectedness Intervention Enables Occupational Well-being
	5.4.5.1. Social Connection Enables Occupational Well-being
	5.4.5.2. Acknowledgment of Occupational Inputs Enables Occupational Well-being
	5.4.5.3. Experiencing Occupational Purpose Enables Occupational Well-being
	5.5. Conclusion

5.2 Quantitative Pre- and Post-Intervention TR Results

5.2.1 Introduction

The following chapter answers SRQ2: "How does TR compare pre- and post-intervention?". The ENTRÉE TR questionnaire was included as a pre- and post-intervention measure. The intervention study process involved an MMR baseline assessment of TR (September 2018), an SC intervention (taking place between March 2019 and July 2019), and a post-intervention MMR assessment of TR (September 2019). It was anticipated that the data would not be normally distributed due to the small sample size (n = 22) with a skewed number of females to males (F = 20, M = 2). Pre- and post-test cross-sectional data was generated on a single sample of peri-urban primary school teachers (Saunders & Tosey, 2013) to describe the TR of teachers before and after participation in an SC intervention.

There were 36 completed TR questionnaires from the pre-intervention data collection (September 2018) and 22 completed questionnaires from the post-intervention data collection (September 2019). Section 5.2.2 presents the Cronbach's alpha coefficients to determine the reliability of the ENTRÉE TR questionnaire. Section 5.2.3 presents the descriptive item-level statistics of raw scores for the TR questionnaire for the 22 teachers who completed both pre- and post-intervention TR questionnaires. Section 5.2.5 presents comparative quantitative results for averages of the scale scores for TR pre- and post-intervention scores.

5.2.2 Reliability of the ENTRÉE TR Questionnaire

Reliability analysis was conducted using the Cronbach's alpha statistic to determine whether the underlying variable structure of the TR questionnaire is a consistent measure in the setting of South African peri-urban primary school teachers in challenged contexts (Bosch, 2020). Cronbach's alpha measures the internal consistency of an instrument. It is a formula frequently used to establish the reliability of measures that utilise multiple response categories, such as in the TR questionnaire. The generally agreed-upon lower limit for Cronbach alpha is 0.70, although some researchers advocate that a value as low as 0.60 is acceptable in general (Daud et al., 2018; Hancock & Mueller, 2013; Nunnally & Bernstein, 1994; Van Griethuijsen et al., 2015; Zhan et al., 2021). The Cronbach's alpha coefficients, and the corresponding 95% confidence interval (CI) for each factor, are shown in Table 5.2, ordered from the highest to the lowest value (Bosch, 2020).

Table 5.2

Factors, Corresponding Cronbach's Alpha Coefficients and 95% CIs for the TR Questionnaire

Scale	Cronbach's alpha	95% CI for Cronbach's alpha	Number of items
Teacher efficacy (TeachEff)	.893	(.825; .953)	12
Teacher motivation (TR-Mot)	.838	(.739; .911)	12
Resilience (Res)	.832	(.722; .910)	9
Teacher professionalism (TR-Prof)	.805	(.679; .892)	6
Contextual	.783	(.659; .881)	11
Teacher sense of coherence (TR-Soc)	.710	(.577; ,852)	5
Teacher emotion (TR-Emot)	.636	(. 376; .806)	5

(Bosch, 2020)

From Table 5.2, it is evident that all Cronbach's alpha coefficients are above the generally accepted value of .7 for all scales except for the Teacher Emotion scale, which has a Cronbach alpha coefficient of .636. However, it should be noted that the value of .636 is acceptable according to the guidelines set out by Ghazali (2008). This being said, further studies could seek to improve the reliability of the Teacher Emotion scale in the setting of South African peri-urban primary school teachers in challenged contexts.

5.2.3 ENTRÉE TR Questionnaire Descriptive Item-Level Statistics

Section 5.2.3. reports on raw scores for each individual item in the ENTRÉE TR questionnaire. As discussed in Chapter 3, the ENTRÉE TR questionnaire was employed to investigate teacher traits that can act as protective resources or risk factors constituting internal pathways that may support or inhibit teacher capabilities to resile. The scoring system was the same for all scales on the ENTRÉE TR scale. The data was ordinal and appeared on a 7-point Likert scale to determine participant attitudes to each specific statement (López et al., 2015). A numerical value was assigned to participant responses (1 to 7), with 1 = "Do not agree at all", 2 = "Disagree", 3 = "Slightly disagree", 4 = "Neutral", 5 = "Slightly agree", 6 = "Agree" and 7 = "Strongly agree" for questions relating to the Teacher Professionalism, Teacher Emotion, Teacher Motivation, Teacher Sense of Coherence and Contextual scales. For questions relating to Resilience and Teacher Efficacy scales the following values were assigned to the Likert scale: 1 = "Absolutely not confident", 2 = "Not confident", 3 = "Slightly unconfident",

4 = “Neutral”, 5 = “Slightly confident”, 6 = “Confident”, and 7 = “Strongly confident”. It was necessary to recode two negatively worded questions on the Contextual scale to ensure consistent scoring of all the questions. These two contextual questions were as follows:
Question 1: “I did not want to become a teacher”
Question 8: “As a teacher, I will wait for government or officials to solve problems in schools”.

All pre- and post-intervention responses were electronically captured on an Excel sheet, as illustrated in Appendix J. The mean, median and mode for each question and the minimum, maximum and standard deviations (SD) are displayed in Tables 5.3 to 5.8 to explain the data distribution per question. Tables 5.3 to 5.9 show the pre- and post-intervention item-level descriptive statistics across seven TR scales of the ENTRÉE TR questionnaire, including TR-Prof, TR-Emot, TR-Mot, TR-Soc; Res and TeachEff (Peixoto et al., 2018; Watt & Richardson, 2007), and the contextual items (Coetzee, 2013).

Table 5.3

Pre- and Post-Intervention Descriptive Statistics of the Questions from the Teacher Professionalism (TR-Prof) Scale

Questions	*n*	$\bar{x}$		Mdn		SD	
		Pre	Post	Pre	Post	Pre	Post
“At school, I can be flexible when situations change” (Q1, Appendix B)	22	5.77	5.86	6.00	6.00	0.81	1.59
“I can quickly adapt to new situations at school” (Q2, Appendix B)	22	5.62	6.51	6.00	6.50	0.75	0.67
“I am well organised in my school work” (Q3, Appendix B)	22	5.23	5.73	5.00	6.00	0.87	1.12
“I reflect on my teaching and learning to make future plans” (Q4, Appendix B)	22	5.51	6.15	5.50	6.00	0.91	0.89
“In my role as a teacher, I am a good communicator” (Q23, Appendix B)	22	5.95	6.09	6.00	7.00	0.85	1.15
“At work, I can view situations from other people’s perspectives” (Q25, Appendix B)	22	5.50	6.51	5.50	7.00	0.91	0.80

Note: $\bar{x}$ = mean, mdn = median, SD = standard deviation

Table 5.3 indicates that for pre-intervention scores, the median (as the data is not normally distributed) for questions from the Teacher Professionalism scale ranged between 5 (“Slightly Agree”) and 6 (“Agree”). Two questions at pre-intervention indicated a median of 5 (“Slightly Agree”) and reflected the following statements: Question 3: “I am well organised in my school work” and Question 5: “I reflect on my T&L to make future plans”. At post-intervention, the

median for these two questions increased to 6 (“Agree”), indicating that teachers at post-intervention felt more confident in organising their schoolwork and reflecting on their teaching practice.

For post-intervention scores, the median and mode for questions from the Teacher Professionalism scale ranged between 6 (“Agree”) and 7 (“Strongly agree”). Specific post-intervention increases included Question 23: “In my role as a teacher, I am a good communicator”, with the pre-intervention median going from 6 (Agree) to the post-intervention median being 7 (“Strongly agree”). Question 25: “At work, I can view situations from other people’s perspectives”, with the pre-intervention median going from 5.5 (“Agree”) to the post-intervention median being 7 (“Strongly agree”). Post-intervention increases on these items suggest improved teacher social-emotional competence as reported by their ability to communicate and view situations from different perspectives. Table 5.4 shows the results for the TR-Emot scale.

Table 5.4

Pre- and Post-Intervention Descriptive Statistics of the Questions from the Teacher Emotion (TR-Emot) Scale

Questions	*n*	$\bar{x}$		Mdn		SD	
		Pre	Post	Pre	Post	Pre	Post
“When something goes wrong at school, I don’t take it too personally” (Q5, Appendix B)	22	5.55	5.91	6.00	6.00	1.01	1.06
“After reflection, I can usually find the funny side of challenged school situations” (Q6, Appendix B)	22	5.65	5.95	5.00	6.00	1.09	1.50
“When I feel upset or angry at school, I can manage to stay calm” (Q7, Appendix B)	22	5.86	6.33	6.00	7.00	0.77	1.02
“I balance my role as a teacher with other dimensions in my life” (Q8, Appendix B)	22	5.59	5.91	6.00	6.00	0.96	1.55

From Table 5.5, it is evident the median and mode for all the questions in the Teacher Emotion scale for pre-intervention responses ranged between 5 (“Slightly Agree”) and 6 (“Agree”). Pre-intervention data on the Teacher Emotion scale shows high emotional competence amongst peri-urban primary school teachers working in a challenged educational context.

Post-intervention responses increased to a median of responses ranging between 6 (“Agree”) and 7 (“Strongly agree”). Therefore, it can be concluded that the majority of the participants agreed with the questions related to teacher emotion which may indicate that the majority of participants could engage in aspects of emotional regulation and competence in

the social and emotional domains (Peixoto et al., 2018), with post-intervention responses indicating increased emotional regulation and social-emotional competence.

Table 5.5

Pre- and Post-Intervention Descriptive Statistics of the Questions from the Teacher Motivation (TR-Mot) Scale

Questions	*n*	$\bar{x}$		Mdn		SD	
		Pre	Post	Pre	Post	Pre	Post
"I am generally optimistic at school" (Q9, Appendix B)	22	5.55	6.15	6.00	7.00	0.80	1.06
"At school, I focus on building my strengths more than focusing on my limitations" (Q10, Appendix B)	22	5.59	6.29	6.00	7.00	1.05	0.85
"When I make mistakes at school, I see these as learning opportunities" (Q11, Appendix B)	22	5.90	6.65	6.00	7.00	0.62	0.58
"In my role as a teacher, I set goals and work towards achieving them" (Q12, Appendix B)	22	5.59	6.65	5.50	7.00	0.80	0.66
"I have realistic expectations of myself as a teacher" (Q13, Appendix B)	22	5.77	6.23	6.00	6.50	0.92	1.02
"I believe that if I put my mind to something at school, I can be successful" (Q15, Appendix B)	22	6.00	6.77	6.00	7.00	0.69	0.53
"I am good at maintaining my motivation and enthusiasm when things get challenged at school" (Q15, Appendix B)	22	5.65	6.23	6.00	6.00	0.79	0.69
"I enjoy learning when I am at work" (Q16, Appendix B)	22	5.73	6.76	6.00	7.00	1.08	0.55
"I like challenges in my work" (Q17, Appendix B)	22	5.23	5.59	5.00	6.00	1.23	1.05
"I am persistent in my work" (Q18, Appendix B)	22	5.50	6.18	5.50	6.00	0.91	0.80
"I believe that I have control over my work life" (Q19, Appendix B)	22	5.52	6.32	6.00	6.50	0.98	0.85
"It's important to me that I put in effort to do my job well" (Q20, Appendix B)	22	6.00	6.59	6.00	7.00	0.62	0.59

Table 5.5 indicates that the median and mode for all the questions on the Teacher Motivation scale ranged between 5 ("Slightly Agree") and 6 ("Agree"). Pre-intervention responses from the Teacher Motivation scale suggest high primary teaching motivations among the participants. Post-intervention responses increased to a median of responses ranging between 6 ("Agree") and 7 ("Strongly agree").

For pre-intervention responses, only two questions indicated a median of 5 ("Slightly agree"), for Question 12: "In my role as a teacher, I set goals and work towards achieving

them", and Question 17: "I like challenges in my work". Post-intervention responses for Question 12 increased to a median of 7 ("Strongly agree"), and post-intervention responses for Question 17 increased to a median of 6 ("Agree"). Post-intervention increases for these two items indicate teachers felt more confident in setting goals and embracing challenges, which contributed positively to their teacher motivation. Additionally, there was a significant scale score increase for teacher motivation between pre- and post-test, as indicated by the WSR tests (reported in Section 5.2.5). Table 5.6 shows the results for the TR-Soc scale.

Table 5.6

Pre- and Post-Intervention Descriptive Statistics of the Questions from the Teacher Sense of Coherence (TR-Soc) Scale

Questions	*n*	$\bar{x}$		Mdn		SD	
		Pre	Post	Pre	Post	Pre	Post
"When I am unsure of something, I seek help from colleagues" (Q21, Appendix B)	22	5.95	6.65	6.00	7.00	0.72	0.58
"I am good at building relationships in new school environments" (Q22, Appendix B)	22	5.91	6.50	6.00	7.00	0.75	0.67
"In my work, I can look at a situation a number of ways to find a solution" (Q25, Appendix B)	22	5.67	6.27	6.00	6.00	0.80	0.77
"When I am at work, I can generally resolve conflicts with others" (Q26, Appendix B)	22	5.59	6.50	6.00	7.00	0.80	0.60

Table 5.6 shows that the median for all Teacher Sense of Coherence scale questions was 6 ("Agree"). The median of these questions may point to a higher teacher sense of coherence amongst participants and suggest that they can manage challenged situations to achieve satisfying, acceptable or manageable outcomes (Peixoto et al., 2018). Post-intervention results showed higher levels of perceived internal teacher sense of coherence with three out of the four items increasing to 7 ("Strongly agree"), and significant scale score increases for teacher sense of coherence between pre- and post-test, as showed, that teachers felt more capable in managing challenged situations at post-intervention. Table 5.7 shows the results for the Resilience (Res) scale.

Table 5.7

Pre- and Post-Intervention Descriptive Statistics of the Questions from the Resilience (Res) Scale

Questions	*n*	$\bar{x}$		Mdn		SD	
		Pre	Post	Pre	Post	Pre	Post
"Getting over setbacks in school" (Q115, Appendix B)	22	5.79	5.77	5	6	0.85	1.27
"Bouncing back, when things upset me" (Q115, Appendix B)	22	5.90	5.18	5	6	1.30	1.87
"Carrying on with my school work when things go wrong" (Q116, Appendix B)	22	5.55	6.05	6	6	0.75	1.13
"Carrying on in school when events upset me" (Q117, Appendix B)	22	5.27	6.15	5.5	6	0.88	0.95
"Feeling certain that things will come right even if there are serious problems in school" (Q118, Appendix B)	22	5.50	6.18	6	6.5	0.91	1.22
"Managing negative events in school when I try" (Q119, Appendix B)	22	5.77	5.36	5	5.5	0.97	1.59
"Coping with most problems on any school day" (Q120, Appendix B)	22	5.23	6.23	5	7	0.92	1.07
"Some negative things that have happened in school have made me better able to deal with problems" (Q121, Appendix B)	22	5.65	6.51	6	6.5	0.66	0.67
"Not getting disheartened even when children's circumstances make it difficult" (Q122, Appendix B)	22	5.27	5.82	5	6	0.83	1.37

Table 5.7 indicates that for pre-intervention responses to questions on the Resilience scale, the median and mode for all questions ranged between 5 ("Slightly Confident") and 6 ("Confident"). All the questions on this scale required of participants to indicate their confidence in handling or facing certain situations. Since the Resilience scale measures participant self-efficacy, the median indicates that most of the participants in pre-intervention felt confident in their ability to bounce back after facing challenges and used strategies to adapt to these challenges (Morgan, 2011; Peixoto et al., 2018). Post-intervention results for self-efficacy showed significant scale score increases between pre- and post-test scores, as reported in Section 5.2.5. Post-intervention item-level results showed higher levels of perceived self-efficacy with the median and mode increasing to 6 ("Agree") for most items, with Question 120: "Coping with most problems on any school day" increasing from 5 ("Slightly Confident") at pre-intervention to 7 ("Strongly agree") at post-intervention. Table 5.8 shows the results for the TeachEff scale.

Table 5.8

Results for the TeachEff scale

Questions	*n*	$\bar{x}$		Mdn		SD	
		Pre	Post	Pre	Post	Pre	Post
"Teaching all the subjects on the curriculum affectively" (Q123, Appendix B)	21	5.53	5.75	5.00	6.00	1.03	1.51
"Explaining difficult material in ways that the children will understand it" (Q125, Appendix B)	21	5.65	6.10	6.00	6.00	0.93	1.37
"Suggesting suitable examples when the children are having difficulty understanding" (Q125, Appendix B)	21	5.57	6.15	6.00	6.00	1.03	1.20
"Teaching in a way that my learners will remember important information" (Q126, Appendix B)	21	5.90	6.58	6.00	7.00	0.70	1.03
"Applying the new developments in the curriculum into my teaching" (Q127, Appendix B)	21	5.70	6.29	6.00	7.00	0.92	1.19
"Helping children focus on learning tasks and avoid distractions" (Q128, Appendix B)	21	5.62	6.53	6.00	7.00	1.02	0.68
"Managing inappropriate behaviour" (Q129, Appendix B)	21	5.50	6.33	5.00	7.00	1.23	0.80
"Encouraging learners to take responsibility for their behaviour" (Q130, Appendix B)	21	5.81	6.29	6.00	6.00	0.81	0.78
"Dealing with the diverse learning needs of the learners in my class" (Q131, Appendix B)	21	5.58	6.29	5.00	7.00	0.93	0.85
"Teaching learners' positive behaviour" (Q132, Appendix B)	21	6.25	6.55	6.00	7.00	0.79	0.69
"Providing learners with clear specific behaviour expectations" (Q133, Appendix B)	21	5.90	6.55	6.00	7.00	0.95	0.60
"Communicating affectively with parents" (Q135, Appendix B)	21	5.71	6.55	6.00	7.00	1.01	0.69

The median and mode for questions on the Teacher Efficacy scale ranged between 5 ("Slightly Confident") and 6 ("Confident") from pre-intervention responses. This scale focuses on participant self-evaluation of teaching abilities and beliefs (Morgan, 2011; Peixoto et al., 2018). Post-intervention results showed higher levels of perceived internal teacher efficacy, with 8 out of the 12 items increasing to 7 ("Strongly agree"). Accordingly, it can be concluded that most of the participants felt more confident in their abilities related to the teaching profession and their self-belief as teachers from post-intervention responses. Table 5.9 shows the results for the Contextual scale.

Table 5.9

Pre- and Post-Intervention Descriptive Statistics of the Questions from the Contextual Scale

Questions	*n*	$\bar{x}$		Mdn		SD	
		Pre	Post	Pre	Post	Pre	Post
"I did not want to become a teacher *Question associated with reverse scoring: I wanted to become a teacher" (Q1, Appendix B)*	21	3.62	2.76	5.00	2.00	2.50	2.12
"I may get to love teaching in future" (Q2, Appendix B)	21	5.37	6.15	6.00	7.00	1.80	1.57
"Teachers have played a positive role in my life" (Q3, Appendix B)	21	6.10	6.20	6.00	7.00	1.22	1.82
"I want to be a teacher who instils hope in learners even in the face of many obstacles" (Q5, Appendix B)	21	6.38	6.33	7.00	7.00	0.75	1.35
"As a learner, I attended a school with many challenges and few resources" (Q5, Appendix B)	21	5.62	6.19	6.00	7.00	1.53	1.55
"I know how to teach in a school where there are many challenges and few resources" (Q6, Appendix B)	21	6.25	6.15	6.00	6.00	0.70	1.39
"As a teacher, I want to take initiative to solve problems in schools" (Q7, Appendix B)	21	5.71	6.29	6.00	6.00	1.06	0.78
"As a teacher, I will wait for government or officials to solve problems in schools" (Q8, Appendix B) *Question associated with reverse scoring: As a teacher, I will not wait for government or officials to solve problems in schools*	21	2.80	2.38	2.00	1.00	2.09	2.25
"I will meet informally with other teachers to discuss ways to deal with challenges" (Q9, Appendix B)	21	5.15	5.33	5.50	6.00	1.63	1.80
"I know that teachers have to teach in schools that face many, on-going challenges" (Q10, Appendix B)	21	5.38	5.86	6.00	6.00	1.50	1.56
"My spirituality/religion helps me to be a teacher" (Q11, Appendix B)	21	6.00	6.81	6.00	7.00	1.35	0.50

Note: Questions 1 and 8 are not positively phrased (like the rest of the questions), and, accordingly, the responses were reverse-scored so that the $\bar{x}$, mdn, etc., can be interpreted similarly to the rest of the items in the table.

Although the ENTRÉE TR questionnaire focuses on internal protective resources, the Contextual scale indicates the contextual resources and the adversity characteristic of the South African schooling context. Pre-intervention median and mode for questions ranged

between 5 (“Slightly Agree”) and 7 (“Strongly Agree”), with five responses increasing to 7 (“Strongly Agree”) at post-intervention. The exception was Question 1: “I wanted to become a teacher”, where the median for pre-intervention responses was 5 (“Neutral”) and the median for post-intervention responses was 2 (“not confident”).

The median and mode of questions on the Contextual scale indicated that past teacher role models positively influenced their lives. The median and mode also indicated spiritual or religious resources and the importance of instilling hope in their learners as a contextual protective resource. From the mode and median of the following two questions, it seems that although participants might face many challenges, they tended to take the initiative and not wait for the government’s support, as can be seen from Question 7 (“As a teacher, I want to take the initiative to solve problems in schools”), and Question 8 (phrased positively): “As a teacher, I will not wait for government or officials to solve problems in schools”. These responses suggest that participants frequently engaged with contextual adversity and employed contextual resources to face those challenges.

5.2.4 ENTRÉE TR Pre- and Post-Intervention Quantitative Results

Section 5.2.4 presents the averages of the scale scores for the ENTRÉE TR questionnaire. Quantitative TR data from the Isithebe baseline data set was analysed and compared across 22 teacher participants who completed both pre- and post-intervention TR questionnaires. The 15 pre-test questionnaire responses for teachers who only completed the pre-intervention questionnaire were excluded from the pre- and post-intervention analysis. According to the WST test, about half of the scales were not normally distributed ($p < 0.05$); therefore the use of the non-parametric WSR “test was used to compare the pre- and post-intervention scores” (Ebersöhn et al., 2020, p. 28). The WSR test is a non-parametric statistical test used to compare two repeated measurements on a single sample to assess whether there are statistically significant differences between the pre- and post-intervention (Gibbons & Chakraborti, 2010). Non-parametric statistics are argued to be as useful as parametric methods and are considered more appropriate to use than parametric tests when working with small sample sizes (Gibbons & Chakraborti, 2010). Non-parametric tests are appropriate considering the sample size of my study. Furthermore, non-parametric statistics are specially designed for ordinal and nominal-level data (Mentz & Botha, 2012). Since my study contained nominal, ordinal and continuous data and the researcher utilised a small sample set (n =22), the suitability of non-parametric statistical techniques became apparent (Lopez et al., 2015).

Table 5.10

Results of WSR Tests for TR

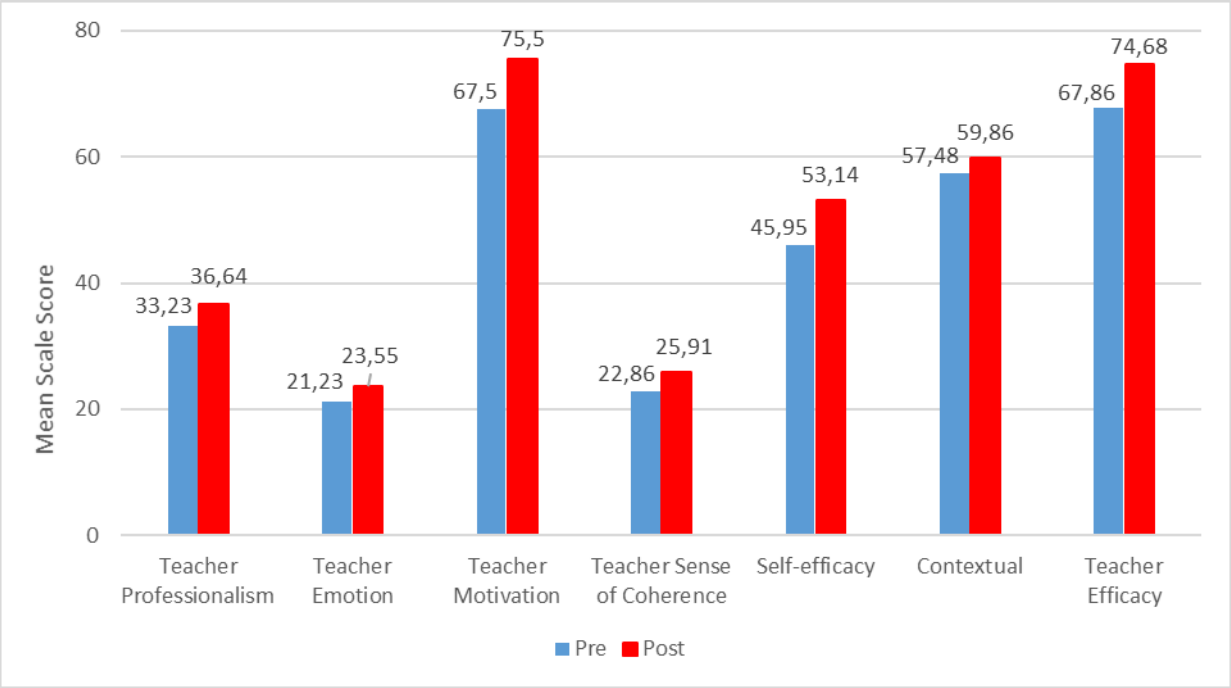
n = 22	$\bar{x}$ (SD)		WSR test	
Scale	Pre	Post	Test statistic	p-value
TR-Prof	33.23 (3.518)	36.65 (3.619)	-3.510	.001*
TR-Emot	21.23 (2.581)	23.55 (3.622)	-2.136	.033*
TR-Mot	67.50 (6.906)	75.50 (6.731)	-3.281	.001*
TR-Soc	22.86 (2.678)	25.91 (1.659)	-3.699	.001*
Res	55.95 (5.925)	53.15 (7.778)	-3.056	.002*
TR-Cont	57.58 (10.352)	59.86 (6.552)	-1.165	.255
TeachEff	67.86 (7.530)	75.68 (12.255)	-2.777	.005*

*Statistically significant ($p < 0.05$)

From Table 5.10 and Figure 5.1, it can be seen that there are significant differences between the pre- and post-test scores for all scales ($p < .05$) where the post-test score is significantly higher each time, except for the contextual scale ($p = .255$) where the difference is not significant. Teacher contextual knowledge ("teacher lived knowledge of the hardship of the space in which they work") (Ebersöhn et al., 2020, p. 26) was high before the intervention.

Figure 5.1

TR Pre- and Post-Intervention Mean Scale Score Comparison



5.3 Qualitative TR Results

5.3.1 Introduction

The following section adds to quantitative results addressing SRQ2: "How does TR compare pre- and post-intervention?" In the following subsections, I discuss themes and sub-themes which emerged from inductive TA on TR given study phases: pre-intervention, process data, and post-intervention. Table 3.6 in Chapter 3 presented an overview of PRA prompts and activities used to generate qualitative pre-, process and post-intervention data.

To determine teacher perspectives on their resilience pre-, process and post-intervention, I analysed verbatim transcriptions of audio recorded teacher-group PRA presentations. Pre-intervention data was collected with teachers in September 2018 in response to the PRA prompt: "What does it mean to be a good teacher? What helps you continue being a teacher?" Qualitative pre-intervention themes, sub-themes and categories describe enablers of TR irrespective of an SC intervention. Process data was collected in May 2019 and July 2019 during joint teacher-researcher meetings in response to the PRA-prompt: "How do these gatherings help you to be a teacher?" Post-intervention data was generated by teachers in September 2019 in response to the PRA-prompt: "What does it mean to be a good teacher? What helps you continue being a teacher?"

Qualitative themes, sub-themes and categories describe enablers of TR in challenged contexts per intervention phase, with the process and post-intervention themes, sub-themes

and categories describing enablers of TR *given an SC intervention.* Two themes were identified at pre-intervention: Theme 1 *"Enablers of quality education in challenged contexts"* (with Subtheme 1.1, "Teacher professionalism enables quality education", and Subtheme 1.2: "T&L competencies enables quality education"), and Theme 2, *"Teacher experiences of enablers of occupational well-being in challenged contexts"* (with Subtheme 2.1: "Acknowledgement of occupational inputs enables occupational well-being", and Subtheme 2.2: "Experiencing purpose via career enables occupational well-being"). *Process data* revealed Category 1.1.2, "Leveraging social networks for teacher PD", which fell under Subtheme 1.1, "Teacher professionalism enables quality education". Process data also revealed Category 1.2.1: "Creativity enables quality education", which fell under Subtheme 1.2–"T&L competencies enable quality education". Additionally, *process data* collection revealed a new Subtheme 2.3, "Social connection enables teacher occupational well-being". During *post-intervention data* collection, two new categories arose under Subtheme 1.2: "T&L competencies enable quality education", entitled Category 1.2.2, "Teacher adaptability enables quality education" and Category 1.2.3, "Showing compassion for learners enables quality education." Table 5.11 summarises the themes, sub-themes and categories per intervention phase. Sections 5.3.3 and 5.3.5 describe TR themes, sub-themes and categories with participant verbatim quotations per intervention phase.

Table 5.11

Qualitative TR Themes per Intervention Phase

Theme	Subtheme	Pre, process and post-intervention	Category	Definition	Inclusion criteria	Exclusion criteria
1. "Enablers of quality education in challenged contexts"	1.1 "Teacher professionalism enables quality education"	Pre- and post-intervention	Refers to "essential aspects of teachers' professional lives such as their career decision making, motivation, job satisfaction, emotion, and commitment" (Hong, 2010, p. 1531)		Instances where teachers indicated that their teacher professionalism is "characterised by positive affect, motivation and commitment to teaching" (Ebersöhn et al., 2020, p. 50)	Instances that only refer to teaching as a profession, without indicating goals, positive affect, motivation and commitment to teaching.
			1.1.1: "Teacher PD enables quality education"	Participation in Isithebe enabled teacher PD to continually upskill and upgrade professional knowledge by taking part in opportunities for lifelong learning. The Isithebe intervention	"Teachers described several opportunities for lifelong learning that helped them develop professionally. These included formal courses provided by the Department of Basic Education, individual	This sub-theme excludes data that refers to PD without actively acknowledging Opportunities for lifelong learning, formal courses and individual initiative to participate in available programmes.

Theme	Subtheme	Pre, process and post-intervention	Category	Definition	Inclusion criteria	Exclusion criteria
				was another PD opportunity (others being taking part in formal courses provided by the DBE, and taking individual initiative to participate in available programmes).	initiative to participate in available programmes, and participation in research studies" (Ebersöhn et al., 2020, p. 32)	
		Process and Post-intervention	1.1.2: "Leveraging social networks for teacher PD".	Participation in Isithebe helped teachers learn from peers, other schools and researchers and enabled quality education.	Instances where teachers indicated that participation in Isithebe helped them learn from peers, schools and researchers, which enabled quality education.	Data that refers to teacher experiences of enablers of quality education without actively acknowledging how Isithebe increased opportunities for further learning and development.
			1.1.3: "Peers as resource for teacher development".	Participation in Isithebe helped teachers learn from peers within schools	Instances where teachers indicated that participation in Isithebe helped them learn from	Data that refers to teacher experiences of enablers of quality education without

Theme	Subtheme	Pre, process and post-intervention	Category	Definition	Inclusion criteria	Exclusion criteria
				and enabled quality education.	peers to enable quality education.	actively acknowledging how Isithebe helped them learn from peers within schools.
			1.1.4: “Schools as resource for teacher development”.	Participation in Isithebe helped teachers learn from peers across schools and enabled quality education.	Instances where teachers indicated that participation in Isithebe helped them learn from other schools to enable quality education.	Data that refers to teacher experiences of enablers of quality without actively acknowledging how Isithebe helped them learn from other schools.
	1.2: “T&L competencies enables quality education”	Pre- and post-intervention	Skills and capabilities to organise and execute courses of action required to accomplish a specific teaching task in a particular context (Raath & Hay, 2016).		Instances where teachers acknowledged that to “provide quality education, they need to have mastered content knowledge of the curriculum” (Ebersöhn et al., 2020, p. 52) and T&L skills.	Data that refers to teachers not acknowledging the importance of teaching and learning competencies within the context they work.

Theme	Subtheme	Pre, process and post-intervention	Category	Definition	Inclusion criteria	Exclusion criteria
		Process	1.2.1: “Creativity enables quality education”	Participation in “Isithebe” arts activities foregrounded creativity to enable quality education plausibly.	Instances where teachers indicated that participation in “Isithebe” arts activities helped them discover their own creativity and used creative processes with their learners as well as enabling quality education.	Data that refers to teacher experiences of enablers of quality without actively acknowledging how “Isithebe” helped them learn from researchers and discover their own creativity.
		Post-intervention	1.2.2. “Teacher adaptability enables quality education”	Participation in Isithebe provided evidence of teachers being flexible and open to change.	Includes instances where teachers indicated that being flexible and open to change is important to resile and deliver quality education.	Instances where teachers did not refer to flexibility and openness to change as important for them to resile and deliver quality education.
			1.2.3. “Showing compassion for learners enables quality education”	Participation in Isithebe provided evidence of teachers showing compassion for learners, plausibly	Includes instances where teachers indicated that showing compassion for learners is important to resile and	Instances where teachers do not indicate that showing compassion for learners is important for them to

Theme	Subtheme	Pre, process and post-intervention	Category	Definition	Inclusion criteria	Exclusion criteria
				enabling quality education.	deliver quality education.	resile and deliver quality education.
2. “Enablers of occupational well-being in challenged contexts”	2.1: “Acknowledgement of occupational inputs enables occupational well-being”.	Pre-intervention	In Isithebe, teachers shared that when learners acknowledged their teacher inputs, teachers experienced occupational well-being.		Instances where teachers spoke about receiving positive feedback from learners which gave the teachers a sense of professional pride.	Instances that refer to experiences of the teaching profession without indicating positive feedback from learners as important for occupational well-being.
	2.2 “Experiencing Occupational Purpose Enables Occupational Well-being”.	Pre- and post-intervention	In Isithebe, teachers shared that when they could make a difference in the lives of the learners they teach, they experience occupational well-being.		Instances where teachers spoke about being able to make a difference that contributed to teachers experiencing purpose via career.	Data that refers to experiences of the teaching profession, without indicating purpose via career as important for occupational well-being.
	2.3 “Social connection enables teacher occupational well-being”.	Process	Teachers reported instances of positive teacher emotion and social connection from participation in “Isithebe”.		Instances where teachers spoke about experiencing positive emotions during Isithebe gatherings that	Instances where teachers did not refer to positive emotions during Isithebe gatherings

Theme	Subtheme	Pre, process and post-intervention	Category	Definition	Inclusion criteria	Exclusion criteria
					contributed to their occupational well-being.	contributed to their occupational well-being.

5.3.2 Theme 1: Enablers of Quality Education in Challenged Contexts

"Being able to provide quality education is an indicator of teacher resilience" (Ebersöhn et al., 2020, p. 50). Theme 1 denotes pathways that teachers in a challenged context foreground that could enable quality education.

5.3.2.1 Sub-Theme 1.1: Teacher Professionalism Enables Quality Education

Teacher professionalism is a teacher's ability to set and define professional goals and aspects such as commitment, motivation and positive emotion (Peixoto et al., 2018). PD forms part of teacher professionalism where teachers are committed to continually upskilling and upgrading their professional knowledge. Isithebe teachers reported that their teacher professionalism and PD enabled them to resile and deliver quality education. This sub-theme includes instances where teachers indicated that their professional identity is characterised by motivation, commitment to teaching, and positive affect (Peixoto et al., 2018). "Resilience is closely associated with teachers' sense of identity, commitment and moral purpose and the extent to which their work contexts are able to support them to enact their moral values and commitment" (Gu, 2018, p. 25). The following excerpts from *pre-intervention* data indicate that "being punctual, being equipped with professional knowledge, and being responsible for setting good examples" (Ebersöhn et al., 2020, p. 50) to learners as important professional goals for Isithebe teachers that formed part of their commitment and motivation to teach:

> "And be inspirational so we can inspire others as well and being exemplary at all times, and we are also an agent of change" (School C, pre-intervention).

> "Also understanding the values of professionalism, right, practices towards the learners, towards your work and towards your staff members" (School D, pre-intervention).

> You must be a motivator and must be caring and loving. You know the challenges that we have in our schools, without love, that you are able to forgive and forget what your learners have done to you… makes you be able to come back the following day. (School B, pre-intervention)

> Must have objectives. Be able to plan, control and guide. As a teacher, we all know that, as a teacher, we are supposed to be teaching, assessing the kids, monitoring their work, doing reports, report to the parents in terms of the progress of your little ones as well; you must also have a strategic planning. (School E, pre-intervention)

Isithebe teachers at *post-intervention* indicated that teachers' professionalism (defined as their commitment and motivation to teach) enabled them to resile and deliver quality education. Teacher professionalism entails being "equipped with professional knowledge and being responsible for setting good examples" (Ebersöhn et al., 2020, p. 50) to learners, as evident in the following excerpts:

> "You need to be informed and innovative and a motivated person." (School A, post-intervention).
>
> "So they are able to understand what you want them to do and by giving clear instructions by being exemplary yourself" (School D, post-intervention).
>
> To be a good teacher is to be very responsible and to be dedicated to your work. To lead by example. To be punctual at school. If you are early at school, children will see that, and they will also be early. (School B, post-intervention)

5.3.2.1.1 Category 1.1.1: Teacher PD enables quality education

This category is when teachers reported that participation in Isithebe enabled teacher PD – being able to continually upskill and upgrade professional knowledge by taking part in opportunities for lifelong learning. The Isithebe intervention was another PD opportunity (others included formal courses provided by the DBE, and taking individual initiative to participate in available programmes).

The following excerpts from *pre-intervention* data indicate how being open to life-long learning by participating in available programmes helped teachers upgrade their professional knowledge and enabled them to provide quality education:

> Number one says a, a lifelong learner is, as teacher you must know that you have to learn… Until you've stopped the teaching or until you die. By trying new skills and new methods, attend workshops, upgrade yourself too. (School A, pre-intervention)
>
> "And keen to learn. And also learn from your colleagues, you learn even from your learners, you can learn something" (School B, pre-intervention).
>
> "So you're facilitating the knowledge, and also you have content knowledge, you understand the curriculum, you understand the… the new DBE, whatever they come with you learn, you research that stuff" (School D, pre-intervention).

> "And you also are a lifelong learner yourself; you're also continuously upgrading your teaching practice and understand that it comes with great responsibility" (School D, pre-intervention).

5.3.2.1.2 Category 1.1.2: "Leveraging social networks for teacher PD"

Teachers working in challenged spaces are surrounded by contextual features such as a support network, mentors and ongoing PD opportunities (Coetzee, 2013; Ebersöhn, 2015). "Isithebe" gatherings increased PD opportunities by leveraging social networks between peers and schools. *Process and post-intervention* data revealed two subcategories from Category 1.1.2, namely, Subcategory 1.1.2.1 "Peers as resource for teacher development" and Subcategory 1.1.2.2 "Schools as resource for teacher development."

Subcategory 1.1.2.1: Peers as a resource for teacher development

Isithebe gatherings contributed to increased PD opportunities by leveraging social networks between teachers. Leveraging social networks involved teachers connecting, networking and sharing ideas which contributed to teacher PD and enabled quality education. This category included instances where teachers identified peers as a resource for teacher development by providing opportunities for networking, advice, support and exchange of ideas, as evident in the following excerpts:

> "We can feel that we have got people at our backs that are pushing us to make our schools where we wish it to be" (School A, May meeting).

> "As teachers, they promote healthy relationships between ourselves, because now we can do all sort of network. And also they help us to share information, it develops you as a teacher" (School B, May meeting).

> When we are having these gatherings, we can identify each other's potential; there is also information sharing and exchange of ideas. This is also what is required in this profession" (School C, May meeting).

> "To share ideas, learning from each other, getting advice over challenges that we come across" (School D, May meeting).

> "These meeting help us be better teachers because we get to mix with other people so that we can share our views and we can exchange our ideas and share our problems at the same time" (School C, July meeting).

"Even with others, we can just throw a question, and people can give you ideas, and if you want hands at school, that group of yours is here, and they will give you hands" (School A, post-intervention).

"It helped us to have a good teamwork because when we are in the gatherings we are able to share ideas, and it actually strengthened the team amongst the school" (School D, post-intervention).

Subcategory 1.1.2.2: Schools as a resource for teacher development

Isithebe gathering facilitated the connection between peers within their schools and teachers across schools. At joint teacher-researcher meetings, teachers from all six participating schools gathered at the same venue and presented PRA posters to each other. Teachers could also socialise and connect with teachers from other schools at this meeting. Teachers reported that leveraging social networks across schools contributed to their PD and enabled quality education. This category encapsulates teacher reports of how Isithebe gatherings helped teachers learn from other schools, as shown by the following excerpts:

"We are also getting feedback from the other groups… if they are presenting, we also get those ideas" (School A, May meeting).

"You don't have the necessary skills; that is why you need to consult with other professionals. These gathering help us to problem solve and how to connect with other schools" (School E, May meeting).

"We learn that when we gather together at these Isithebe meetings, we try to solve also those problems and share those problems, that is why it is so important, and it helps us a lot" (School D, July meeting).

"We also get ideas from the other schools that are presenting to us" (School A, post-intervention).

"These gathering help us to be creative and also to learn from others and share the ideas from others" (School B, post-intervention).

"As the teachers, what we have gained from this is more knowledge, true information sharing because this a platform where we share information" (School C, post-intervention).

Post-intervention data shows teachers describing leveraging social networks for teacher PD. As indicated in the process data, Isithebe gatherings contributed to increased PD opportunities by leveraging social networks between teachers, schools and researchers, as shown by the following excerpts:

> "You must have good relationships with your colleagues, work as team and respect each other" (School A, post-intervention).

> "You must also maintain good relations with your learners and colleagues. You will remember that we spend 80% of our time at work; therefore, it is important that we have those good relations" (School C, post-intervention).

> "You must also have good communication skills because you are also going to meet stakeholders from outside" (School C, post-intervention).

> You must have that good support system; that is what keeps us going. You know that we have challenges in our schools. Sometimes you feel like you don't want to go to school because of some certain things, but what keeps you going is that support. (School C, post-intervention)

5.3.2.2 Sub-Theme 1.2: T&L Competencies Enables Quality Education

T&L competencies are defined as "skills and capabilities to organise and execute courses of action required to accomplish a specific teaching task in a particular context" (Ebersöhn et al., 2020, p. 55). Teachers need to have educational and subject matter knowledge "skills to draw upon combinations of classroom teaching and management skills" (Gu, 2018, p. 27) to deliver quality education (Raath & Hay, 2016). Besides class time, teachers are responsible for extra-curricular activities, discipline and classroom management, academic learner support and parental communication (Gonzalez et al., 2008). Teachers also play an important pastoral role in the emotional well-being of their learners. Therefore, they have the responsibility to identify learning and emotional difficulties that emerge in the classroom and refer learners to the relevant professionals if necessary (Evans, 2017). From the excerpts below, teachers acknowledged that they need to "have mastered content knowledge of the curriculum" (Ebersöhn et al., 2020, p. 52) and T&L skills to provide quality education.

The following excerpts from *pre-intervention data* below indicate T&L competencies as enabling the promotion of quality education:

> "You must know what you're doing… and then you must be very patient" (School B, pre-intervention).

> "And then for a teacher to be a facilitator of knowledge, you're not a banker of knowledge, you're a facilitator, knowledge already exists within the children and the schooling environment." (School D, pre-intervention).

> "And you also understand the learning process. A child doesn't understand something just by learning it once… it's continuous" (School D, pre-intervention).

5.3.2.2.1 Category 1.2.1: Creativity Enables Quality Education.

Category 1.2.1 describes the reported benefits of arts activities done throughout the Isithebe intervention for teacher-learner creativity that plausibly enabled quality education. The Isithebe intervention was designed to create deliberate informal interaction spaces between teachers by leveraging the benefits of art therapy techniques. The benefits of art-based activities include a focus on non-verbal communication and creative processes and the facilitation of a trusting, safe environment (Malchiodi, 2012; Stepney, 2017). Teachers reported that Isithebe art-based activities helped them discover their creativity and use creative processes with their learners to enable T&L competencies, as shown by the following *process intervention* excerpts:

> We gain skills by attending these gathering, and in any project, it requires you to have skills such as planning, execution, implement and communication skills. So in these gathering we learn different techniques, and these enable us to tackle problems. (School B, May meeting)

> "It also gives us ideas because you can do this with the learners and teach them to make things and also helps little one develop fine motor skills" (School A, May meeting).

> "We have a project here at our school where we do these activities with the children. We have given these boxes to our learners because they are doing beadwork; they are doing other sorts of crafts work" (School B, July meeting).

> "We also take what we do here and do the ideas with our children, and it helps them a lot" (School B, July meeting).

> Even the creativity that we are doing now is helping. There are kids in our class you see they can't cope, but you can give them these things to do so that they can make something that will make them to boost their self-esteem (School C, July meeting).

The following *post-intervention* excerpts indicate how T&L competencies form part of teacher experiences of enablers of quality education:

> "The projects that we have done here at Isithebe help us to give back to our learners, and it also helps our learners to be creative" (School B, post-intervention).

> "And we see the creativity of the teachers. There are teachers that are so creative amongst the group that we did not know, but when we gather, we see those skills" (School C, post-intervention).

> "Some of struggle to come up with something creative, but when we are around Isithebe, some of us are creative enough to help us simplify it so that we can initiate it" (School D, post-intervention).
>
> and
>
> "The young learners that we are having are taking those crafts that we are teaching them to sell at markets over weekends. The simple thing of making the Isithebe group to be creative was able to extend to the learners" (School D, post-intervention)

> "We are dealing with a young kids. For example, sometimes it takes time to understand a certain concept. So, if you can't show any patience, then you might just quit teaching" (School B, post-intervention).

> "You must have good command of your classroom, and you must know your subject matter" (School B, post-intervention).

5.3.2.2.2 Category 1.2.2. Teacher Adaptability Enables Quality Education.

Participation in Isithebe provided evidence of teachers being flexible and open to change. "As well as motivational, social and emotional aspects, there were also those aspects which are more profession-related such as being reflective, flexible and adaptable" (Silva et al., 2018, p. 265). From a social-ecological perspective, resilience processes are embedded in the multiple contexts of their everyday professional lives, and these contexts are inherently uncertain and unpredictable (Mansfield et al., 2012). Because of this uncertainty, teachers need to be adaptable and open to learning new skills and methods. Post-intervention data indicated that teachers view teacher PD and being open to lifelong learning, being flexible and open to criticism as vital for them to engage in quality education, as indicated by the following *post-intervention* excerpts:

> "Life-long learning as a teacher – you need to learn every day from everyone" (School A, post-intervention).

"You must be willing to be flexible in changes" (School A, post-intervention).
"You must be willing to adapt. As we know, we are living in a time of change. Circumstances are changing all the time" (School B, post-intervention).

"And you must accept criticism. Positive criticism… to be flexible for a change" (School B, post-intervention).

"To continue being a good teacher, you need to accept the change because things are changing, curriculum changes as well" (School C, post-intervention).

"Another one is being understanding and flexible." (School D, post-intervention); and
"Learn new strategies from other teachers and learn new skills on how to impart the knowledge I have" (School D, post-intervention).

5.3.2.2.3 Category 1.2.3: Showing Compassion for Learners Enables Quality Education.

In addition to other possible sources of support (such as neighbours or extended family members), teachers can be a source of comfort for the children they teach. Therefore, a teacher's sense of care and compassion is particularly relevant to the contextual demands placed on them (Ferreira et al., 2010). Understanding the impact of the various macro-level factors on the learners' lives has made teachers more compassionate to the learners and helped pacify negative emotions (Cross & Hong, 2012). Teacher accounts report that showing compassion for learners enables quality education, as shown by the following *post-intervention* excerpts:

"You need to go the extra mile in everything and be a good Samaritan in every situation" (School A, post-intervention).

"You must have a good heart. Like I have a soft spot for my learners because they come from different backgrounds" (School C, post-intervention).

"You must be willing to lend an ear whenever there is a problem. You must also try for that harmony and unity. You must also be empathic and sympathetic" (School C, post-intervention).

"But if you are a good teacher, you listen to any story that they share with you, to any situation that they bring forth to you" (School D, post-intervention).

> "Another one is being empathetic and compassionate – these kids come to school with different challenges, so now as a teacher, you have to show empathy and be compassionate" (School D, post-intervention).

> "Whenever you come to school in the morning, the way you great a learner it brings about a smile and changes the whole situation. That child becomes happy, and for the whole day, you see that child coming to you" (School D, post-intervention).

5.3.3 Theme 2: Enablers of Teacher Occupational Well-being in Challenged Contexts

Similar to teachers in other parts of the world, teachers in my study "also pointed out that their positive occupational well-being was resilience-enabling" (Ebersöhn et al., 2020, p. 32). According to "Isithebe" teachers, their TR is promoted when they enjoy experiencing purpose via their teaching career. Pre-intervention teacher experiences of occupational well-being are broken down into two sub-themes: Sub-theme 2.1, "Acknowledgement of occupational inputs enables occupation well-being", and Sub-theme 2.2, "Experiencing Occupational Purpose Enables Occupational Well-being".

Although post-intervention data was *silent* on the pre-intervention, "Acknowledgement of occupational inputs enables occupation well-being", there was evidence of Subtheme 2.2, "Experiencing Occupational Purpose Enables Occupational Well-being". Subtheme 2.3, "Social connection enables teacher occupational well-being", is a process subtheme.

5.3.3.1 Sub-Theme 2.1: Acknowledgement of Occupational Inputs Enables Occupational Well-being

"Isithebe" teachers shared that when learners acknowledged their teachers' inputs, teachers experienced occupational well-being. The acknowledgement of occupational inputs enables occupational well-being, as positive feedback from learners significantly impacts teachers' occupational well-being (Le Cornu, 2013). Teachers' occupational well-being was positively affected when learners "acknowledged their inputs with positive feedback" (Ebersöhn et al., 2020, p. 52), contributing to the lives of children. Receiving positive feedback from learners gave the teachers a sense of professional pride and played a vital role in their resilience processes, as evident in the following *pre-intervention* excerpts:

> "Motivation from others, rewards and awards, success of the learners" (School A, pre-intervention).

> And what gives us drive also to wake up every day is being passionate about our learners, knowing that our core business is to teach and also when you receive that

> feedback from your learners… it makes you proud knowing very well that you have unlocked the potential of that kid. (School C, pre-intervention)
>
> Seeing the success stories of the learners you have taught. I mean, I'm waiting for the day when one of my learners comes up to me as a scientist at NASAR, and they are like, 'Miss, it's me!!' and I am going to be like what, I actually had an impact in that child's life. (School D, pre-intervention)

5.3.3.2 Sub-Theme 2.2: Experiencing Occupational Purpose Enables Occupational Well-being

Teacher occupational well-being was positively affected when teachers experienced purpose via career by contributing to the lives of the learners they teach (Gu, 2018; Le Cornu, 2013). Being able to make a difference in the lives of the learners they taught contributed to teachers experiencing purpose via their career, as evident in the following excerpts:

> "It's the passion you have, you, you will just have that feeling when you stay away from your learners; you miss them even during the holidays" (School B, pre-intervention).
>
> "We are also an agent of change" (School C, pre-intervention).
>
> "And also a change maker, you're making a huge impact in society. One child's life is going to impact how many more lives" (School D, pre-intervention).
>
> "We teach because we see change in the learners and experiencing that learning process and experiencing the learning progress of a learner… I think that is payment enough." (School D, pre-intervention)
>
> "Every day I go to work, I am doing something great in society, and I know that" (School D, pre-intervention).

Post-intervention data reiterated that teachers' occupational well-being was positively affected when they experienced purpose via their career by contributing to the lives of the learners they teach, as evident by the following excerpts:

> "Hope for a better future. As a teacher, you must have a hope that you can do better" (School B, post-intervention).

> "What keeps us being a teacher is knowing that we have built a good foundation to our learners" (School C, post-intervention).

> To give back what you have learned from the university or college. When you see those learners progress to university and get jobs, I feel proud about that. That is what makes me to continue with my teaching, to change the lives of children and serve the community as a whole. (School B, post-intervention)

5.3.3.3 Sub-Theme 2.3: Social Connection Enables Teacher Occupational Well-Being

Process and *post-intervention data* revealed that Isithebe teachers experienced occupational well-being given an SC intervention that included more positive teacher emotion and SC accounts. Sub-theme 2.3 describes instances where teachers spoke about experiencing positive emotions during Isithebe gatherings that contributed to their occupational well-being. Teacher emotion includes aspects essential to resilience, including humour, enjoyment, and emotional regulation (Peixoto et al., 2018). Nurturing teachers' emotional well-being is a central component of resilience. These emotions affect and are affected by T&L and the relationships between learners, teachers, co-workers and school leaders (Cross & Hong, 2012; Day & Gu, 2007). The teachers reported that Isithebe gatherings helped them debrief, relax and connect with their co-workers, and as a result, they experienced positive emotions that enabled occupational well-being. The following excerpts illustrate how SC contributed to occupational well-being:

> "Also, what makes it more helpful is that we as teachers can be relaxed and more comfortable around each other, and I think you are also really boosting our confidence as teachers as well" (School B, May meeting).

> "They give us chance to run away from the formalities and to develop a new set of skills and just to cool down and slow down. It helps us to know each other better, and they minimise stress" (School A, July meeting).

> "We enjoy our Isithebe meetings at school. Those meeting help us to share information and help us share difficulties. They motivate us not to be tired" (School B, July meeting).

> "They help us to cope with stressful situations and also to help with the challenged situations because that is where you get help and guidance" (School E, July meeting).

"The meetings help us to debrief, relax, calm down and talk freely, not about the curriculum, but to be ourselves so that we can be fresh again" (School A, post-intervention).

"So it keeps us helping each other, and I know that I have my Isithebe group of mine, so you feel secure; security is very important in these times" (School A, post-intervention).

"You meet, you laugh, you take photos, you eat… it becomes a way of exhaling out" (School C, post-intervention).

"These gatherings boost our confidence… yes, we are confident, but you are confident in your corner, but now this boosts us more to be confident" (School C, post-intervention).

"Now you don't have that kind of fear that you can't expose yourself that you don't know anything, because you know now that you have a strong support around you" (School D, post-intervention).

5.4 Integrating QUAN+QUAL TR Results

5.4.1 Introduction

In the following section, I summarise the quantitative results and the qualitative findings over the study phases: pre-intervention, process data, and post-intervention to address SRQ3: "To what extent did the SC intervention with teachers in peri-urban primary schools enable TR?" Following this section, I discuss the conceptual definitions of the TR questionnaire scales and corresponding qualitative sub-themes.

5.4.2 MMR TR Results

In Table 5.1, I show how QUAN+QUAL results interface. I show how the definitions of the TR questionnaire scales correspond with the inclusion criteria and occurrence of qualitative sub-themes.

Table 5.12

Quantitative TR Scales and Corresponding Links to Qualitative Sub-Themes

Qualitative sub-themes and inclusion criteria	Pre-intervention qualitative sub-theme	Post-intervention qualitative sub-theme	Process qualitative sub-theme
TR questionnaire scale and definition: Teacher professionalism *"[T]eachers' ability to set and define professional goals, as well as aspects such as commitment, organisational and teaching skills" (Ebersöhn et al., 2020, p. 9)*			
Sub-theme 1.1: "Teacher Professionalism Enables Quality Education" Instances where teachers indicated that their teacher professionalism is "characterised by positive affect, motivation and commitment to teaching" (Ebersöhn et al., 2020, p. 50)	Reported	Reported	Silent
Sub-theme 1.2: "T&L Competencies Enables Quality Education" Instances where teachers acknowledged that to "provide quality education, they need to have mastered content knowledge of the curriculum" (Ebersöhn et al., 2020, p. 52) and T&L skills.	Reported	Reported	Silent
Category 1.1.1: "Teacher PD Enables Quality Education" Participation in Isithebe enabled teacher PD to continually upskill and upgrade professional knowledge by taking part in opportunities for lifelong learning. The Isithebe intervention was another PD opportunity (others being taking part in formal courses provided by the DBE and taking individual initiative to participate in available programmes).	Reported	Silent	Silent
Category 1.1.2: "Leveraging Social Networks for Teacher PD" Participation in "Isithebe" helped teachers learn from peers, other schools and researchers and enabled quality education.	Reported	Reported	Reported
Category 1.2.2: "Teacher Adaptability Enables Quality Education" Participation in "Isithebe" provided evidence of teachers being flexible and open to change.	Silent	Reported	Silent
Category 1.2.3: "Showing Compassion for Learners Enables Quality Education" Participation in Isithebe provided evidence of teachers showing compassion for learners, plausibly enabling quality education.	Silent	Reported	Silent

Qualitative sub-themes and inclusion criteria	Pre-intervention qualitative sub-theme	Post-intervention qualitative sub-theme	Process qualitative sub-theme
TR questionnaire scale and definition: Teacher emotion *"[I]ncludes aspects essential to resilience, including humour, enjoyment as well as emotional regulation" (Ebersöhn et al., 2020, p. 9)*			
Sub-Theme 2.3: "Social Connection Enables Teacher Occupational Well-Being" Instances where teachers spoke about experiencing positive emotions during "Isithebe" gatherings that contributed to their occupational well-being.	Silent	Silent	Reported
TR questionnaire scale and definition: Teacher motivation *"[M]easures teachers' primary motivations to teach as well as combine aspects such as optimism, intrinsic motivation and enthusiasm" (Ebersöhn et al., 2020, p. 9)*			
Sub-theme 2.1: "Acknowledgement of Occupational Inputs Enable Occupational Well-being" In "Isithebe", teachers shared that when learners acknowledged their teacher inputs, teachers experienced occupational well-being.	Reported	Silent	Silent
Sub-theme 2.2: "Experiencing Occupational Purpose Enables Occupational Well-being" In "Isithebe" teachers shared that when they can make a difference in the lives of the learners they teach, they experience occupational well-being.	Reported	Reported	Silent
Category 1.2.3: "Showing Compassion for Learners Enables Quality Education" Participation in Isithebe provided evidence of teachers showing compassion for learners, plausibly enabling quality education.	Silent	Reported	Silent
TR questionnaire scale and definition: Teacher sense of coherence *"[I]nvestigates coping strategies teachers employ in order to understand and manage challenged situations" (Ebersöhn et al., 2020, p. 9)*			
Sub-theme 1.1: "Teacher professional identity enables quality education" Instances where teachers indicated that their teacher professionalism is "characterised by positive affect, motivation and commitment to teaching" (Ebersöhn et al., 2020, p. 50)	Reported	Reported	Silent
Sub-theme 1.2: "T&L competencies enables quality education" Instances where teachers acknowledged that to "provide quality education, they need to have mastered	Reported	Reported	Silent

Qualitative sub-themes and inclusion criteria	Pre-intervention qualitative sub-theme	Post-intervention qualitative sub-theme	Process qualitative sub-theme
content knowledge of the curriculum" (Ebersöhn et al., 2020, p. 52) and T&L skills.			
Category 1.1.1: "Teacher PD enables quality education" Participation in Isithebe enabled teacher PD to continually upskill and upgrade professional knowledge by taking part in opportunities for lifelong learning. The Isithebe intervention was another PD opportunity (others being taking part in formal courses provided by the DBE and taking individual initiative to participate in available programmes).	Reported	Reported	Silent
Category 1.2.2: "Teacher Adaptability Enables Quality Education" Participation in "Isithebe" provided evidence of teachers being flexible and open to change.	Silent	Reported	Silent
Category 1.1.2: "Leveraging Social Networks for Teacher PD" Participation in "Isithebe" helped teachers learn from peers, other schools and researchers and enabled quality education.	Reported	Reported	Reported
TR questionnaire scale and definition: Teacher efficacy *"[A]ssesses teacher beliefs regarding their own behaviour and ability in the teaching profession" (Ebersöhn et al., 2020, p. 9)*			
Sub-theme 1.1: "Teacher Professionalism Enables Quality Education" Instances where teachers indicated that their teacher professionalism is "characterised by positive affect, motivation and commitment to teaching" (Ebersöhn et al., 2020, p. 50)	Reported	Reported	Silent
Sub-theme 1.2: "T&L competencies enables quality education" Instances where teachers acknowledged that to "provide quality education, they need to have mastered content knowledge of the curriculum" (Ebersöhn et al., 2020, p. 52) and T&L skills.	Reported	Reported	Silent
Category 1.1.1: "Teacher PD Enables Quality Education" Participation in Isithebe enabled teacher PD to continually upskill and upgrade professional knowledge by taking part in opportunities for lifelong learning. The Isithebe intervention was another PD opportunity (others being taking part in formal courses provided by	Reported	Silent	Silent

Qualitative sub-themes and inclusion criteria	Pre-intervention qualitative sub-theme	Post-intervention qualitative sub-theme	Process qualitative sub-theme
the DBE and taking individual initiative to participate in available programmes).			
Sub-theme 2.1: **"Acknowledgement of occupational inputs enables occupational well-being."** In "Isithebe", teachers shared that when learners acknowledged their teacher inputs, teachers experienced occupational well-being.	Reported	Silent	Silent
Sub-theme 2.2: 2.2 "Experiencing Occupational Purpose Enables Occupational Well-being". In "Isithebe", teachers shared that when they can make a difference in the lives of the learners they teach, they experience occupational well-being.	Reported	Reported	Silent
Category 1.2.3: "Showing Compassion for Learners Enables Quality Education" Participation in Isithebe provided evidence of teachers showing compassion for learners, plausibly enabling quality education.	Silent	Reported	Silent

As indicated in Section 5.2.2, the descriptive statistics at *pre-intervention measurement* indicated a high level of perceived internal TR across scales among the peri-urban primary school teachers in the data set across all seven scales. Pre-intervention results indicated high incidences of "teacher professionalism, teacher emotion, teacher motivation, teacher sense of coherence, resilience, teacher self-efficacy," (Ebersöhn et al., 2020, p. 2), and *contextual resources,* which contributed to high perceived TR amongst participants. QUAN+QUAL pre-intervention data indicates that teachers can identify and navigate towards internal protective resources.

Pre-intervention qualitative results describe teacher reports on experiences of enablers of quality education that included instances where the teachers expressed Sub-theme 1.1: "Teacher professionalism enables quality education", and Sub-theme 1.2: "T&L competencies enable quality education", as seen in Theme 1. Theme 2 revealed that "Isithebe" teachers felt their occupational well-being was promoted when their occupational inputs were acknowledged (Sub-theme 2.1) and when they experienced occupational purpose (Sub-theme 2.2), as discussed in Theme 2.

My study's findings showed high teacher professionalism in pre-intervention data collection amongst participants, which contributed to their TR. Qualitative data indicated that teachers in my study viewed a strong commitment to the profession and involvement in

teaching skills as pertinent protective resources that buoyed their TR. Furthermore, pre-intervention quantitative results indicated that teachers identified the ability to regulate emotions and social and emotional competencies as significant internal protective traits (as indicated by the *teacher emotion* scale). Pre-intervention qualitative data was silent on emotional competencies as resilience-enabling.

Quantitative results on the *teacher motivation* scale highlighted the importance of enthusiasm, internal motivation and an optimistic orientation (Peixoto et al., 2018; Watt & Richardson, 2007) as important for TR. Teacher motivation was reflected in qualitative Sub-theme 2.1, "Acknowledgement of occupational inputs enables occupational well-being"; Sub-theme 2.2, "Experiencing Occupational Purpose Enables Occupational Well-being", and Category 1.2.3, "Showing Compassion for Learners Enables Quality Education."

The quantitative results derived from the *teacher sense of coherence* scale suggested that teachers found the ability to view challenges as manageable, comprehensible, and meaningful as important protective resources (Peixoto et al., 2018). These viewpoints were reflected in qualitative Sub-theme 1.1, "Teacher professional identity enables quality education"; Sub-theme 1.2, "T&L competencies enable quality education", and Category 1.1.1, "Teacher PD Enables Quality Education."

Teachers indicated (in the *resilience* and *teacher efficacy scales*) self-efficacy (resilience), and self-belief in teaching abilities (Morgan, 2011; Peixoto et al., 2018) as significant for TR. Quantitative *teacher efficacy* scores were reflected in qualitative Sub-theme 1.1, "Teacher professional identity enables quality education"; Sub-theme 1.2, "T&L competencies enable quality education"; Category 1.1.1, "Teacher PD enables quality education"; Category 1.1.2, "Leveraging Social Networks for Teacher PD", and Category 1.2.2, "Teacher Adaptability Enables Quality Education."

On the contextual scale, teachers identified the influence of previous teacher role models and the importance of spiritual or religious resources to support teachers in resiling despite the chronic adversities characteristic of a severely socio-economically challenged context (Coetzee, 2013). The contextual scale "measured factors which sustain teachers in their profession such as showing empathy to or instilling hope in learners" (Ebersöhn et al., 2020, p. 2). Increases in the contextual scale are linked to Sub-theme 2.2, "Experiencing purpose via career enables occupational well-being", and Category 1.2.3, "Showing Compassion for Learners Enables Quality Education".

Process data collected revealed that Isithebe gatherings leveraged social networks for teacher PD. As evident in Category 1.1.2: "Leveraging social networks for teacher PD" teachers foreground learning from peers, other schools, and researchers that enable quality education. Participation in "Isithebe" created additional networking opportunities for teachers to leverage social support via peers and schools. Encouragement from peers, learners, family

and co-workers is crucial in TR by teachers acting together as a collective problem-solving network (Coetzee, 2013). Process data revealed that teachers reported experiencing positive emotions during “Isithebe” gatherings that contributed to their occupational well-being. The teachers reported that “Isithebe” gatherings helped them debrief, relax, and connect with their co-workers, and as a result, they experienced positive emotions that enabled occupational well-being.

Teacher experiences of enablers of quality education at *post-intervention measurement* included instances where the teachers expressed *teacher professionalism, T&L competencies* and *leveraging social networks* as enabling quality education. South African research has found that teachers in challenged educational contexts with strong beliefs (in their learners' potential and what quality teaching includes) and a well-developed professional identity (academic carers and nurturers) could refocus their thinking to remain hopeful and committed to quality teaching (Coetzee, 2013).

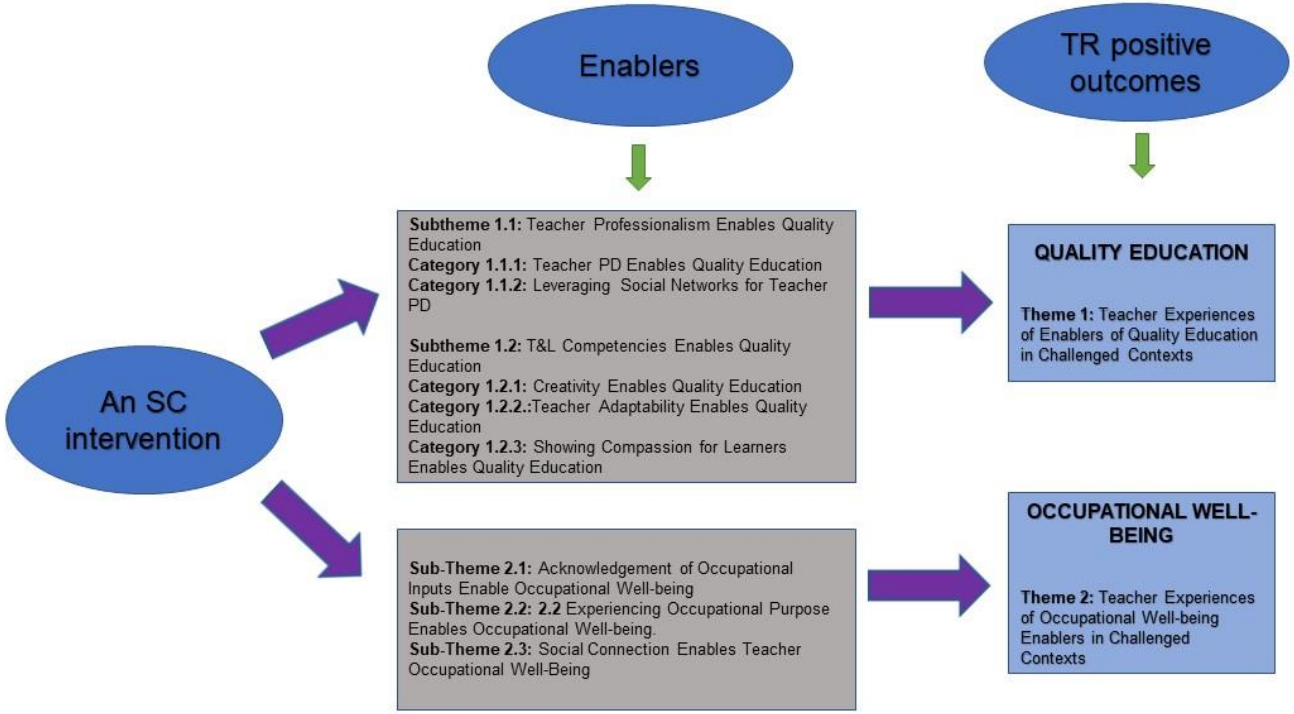
“Significant differences were found between pre- and post-intervention results with regard to all scales except the teacher contextual scale” (Ebersöhn et al., 2020, p. 44). Teacher contextual knowledge (“teacher lived knowledge of the hardship of the space in which they work” (Ebersöhn et al., 2020, p. 26) was high before the intervention, which potentially “signifies that teachers are aware of the obstacles they face in their daily lives” (Ebersöhn et al., 2020, p. 26) and that teachers working in a challenged educational space have become accustomed to cumulative and chronic risk factors present in their everyday working conditions. Increases across quantitative TR scales are “mirrored in qualitative data with teachers determined to be good teachers who engage in professional development opportunities in order to provide quality education” (Ebersöhn et al., 2020, p. 55). Increases in quantitative TR scales indicate that deliberately strengthening SC manifested in increased instances of Theme 1, “Teacher experiences of enablers of quality education given an SC intervention”, and Theme 2, “Teacher experiences of occupational well-being enablers given an SC intervention”.

Teachers reported that showing compassion for learners enabled quality education in post-intervention data. According to Ben-Peretz et al. (2003), teachers working with children from disadvantaged backgrounds find themselves “acting in the role of caregivers” (p. 280) by providing the learners with advantages that society and history have taken from them. Teachers' ability to empathise with disadvantaged learners can help teachers reorient their interpretative lens, which results in different emotional reactions (Markus & Kitayama, 1994). Post-intervention findings indicate increased compassion for learners enabled teachers to resile and deliver quality education.

“Quantitative results across pre- and post-intervention confirmed there were significant differences regarding teacher professionalism, teacher emotion, teacher motivation, teacher efficacy and teacher sense of coherence” (Ebersöhn et al., 2020, p. 55). Increases in quantitative TR scales, mirrored in qualitative themes, indicate that deliberately strengthening SC and being engaged in reciprocal social support contributed to TR and enabled teachers to deliver quality education (Ebersöhn, 2018; Gu, 2018; Mansfield et al., 2018). This resounds with Ebersöhn et al., who stated that “[i]ndividuals engage collectively in bidirectional, transactional processes so that an ecology can support positive adjustment” (Ebersöhn et al.,2020, p. 5). Post-intervention data collection reported increased incidences of “Teacher experiences of enablers of quality education given an SC intervention” (Theme 1) and “Teacher experiences of occupational well-being given an SC intervention” (Theme 2), which corroborated increases across quantitative TR scales. Figure 5.2 presents an overview of TR themes and subthemes at the pre-, process and post-intervention study phases.

Figure 5.2

Overview of TR Themes That Occurred at Pre-, Process and Post-Intervention Study Phases



5.4.3 Literature Control and Findings

5.4.3.1 Introduction

In this section, I address SRQ3, "To what extent did the SC intervention with teachers in peri-urban primary schools enable TR?" The SC intervention mobilised enablers that supported TR positive outcomes that included Quality Education (positive outcome) enabled by Teacher Professionalism, T&L competencies (enablers demonstrated in SC intervention), and Occupational Well-Being (WB) (positive outcome) enabled by (enablers visible/demonstrated in SC intervention) acknowledgement and occupational purpose.

The SC intervention foregrounded enablers that supported TR positive outcomes. Sections 5.4.3.2 to 5.4.3.4 discuss *quality education* enablers demonstrated in the SC intervention that included teacher professionalism, T&L competencies, teacher PD, leveraging social networks, creativity, teacher adaptability, and showing compassion. Subthemes under Theme 1, "Enablers of Quality Education in Challenged Contexts", resonate with teacher well-being research that have shown teachers who "have strong self-regulation skills, social support, teaching self-efficacy, and compassion" (Proeschold-Bell et al., 2021., p. 52) are better equipped to deliver quality education (Gu & Day, 2013; Mansfield et al., 2016; Proeschold-Bell et al., 2021). Occupational well-being creates more effective teachers to enable quality education measured by improved teacher and learner performance (Proeschold-Bell et al., 2021). Teachers' resilience is positively correlated with their occupational well-being; therefore, exploring factors contributing to occupational well-being has important implications for teacher resilience (Proeschold-Bell et al., 2021). The well-being of teachers has also been shown to affect the learners in their care since satisfied teachers are likely to create an effective learning environment with more productive classrooms (Day, 2012).

Sections 5.4.3.5. to 5.4.3.7 discuss *occupational well-being* enablers demonstrated in the SC intervention that included: Acknowledgement of occupational inputs, experiencing occupational purpose and social connection. Subthemes falling under Theme 2, "Enablers of Teacher Occupational Well-being in Challenged Contexts", resonate with teacher well-being research that has highlighted "school settings that are conducive to teacher well-being are those that provide social support and a sense of collegiality to teachers" (Proeschold-Bell et al., 2021., p. 52). Each section discusses confirmatory literature on TR, silences in data and novel insights on evidence for interventions to support TR in challenged contexts.

5.4.3.2 Teacher Professionalism Enables Quality Education

My study's findings showed high teacher professionalism amongst participants, contributing to their TR and enabling quality education. "Synonymous with existing TR knowledge, teachers in my study view their role in providing quality education as an essential resilience-enabling resource" (Ebersöhn et al., 2020, p. 39). "Isithebe" teachers reported that the quest to "be a good teacher" involves a commitment to provide quality education and functions as a pathway to TR. Additionally, this theme denotes instances where a teachers' sense of purpose is closely related to their professional identity (Day, 2012; Hong, 2010; Peixoto et al., 2018) and allows them to draw upon resources in the face of challenged conditions.

Teachers worldwide are being asked to do more with less money as the demand for learner achievement rises, impacting teacher training and development (Lowe & Prout, 2019). As a result, teacher training and development should be continually enhanced, reorganised, and refocused to produce high-quality teachers prepared for the challenged classroom (Buchanan et al., 2013; Thieman et al., 2014). Lowe and Prout (2019) stated that teacher development in the Global South is unnecessarily bureaucratic, under-resourced, and poorly executed, resulting in a drop in educational quality. Improved teacher training, school management, and teacher professional development may have a significant long-term impact on educational achievement (Mlachila & Moeletsi, 2019).

Literature on teacher professionalism has highlighted the complex and dynamic nature of how teachers see themselves as professionals and their capabilities to handle the profession's demands (Flores, 2018; Gu, 2018). The teacher professionalism of in-service primary school teachers from the six peri-urban primary schools challenged by severe deprivation was *high before the intervention*. This result is unexpected as evidence from related studies of severe deprivation in the space of chronic and cumulative challenge predict teacher burnout and distress and low-quality education – not high teacher professionalism. One plausible interpretation of high teacher professionalism in a challenged context could be that teachers are mindful of the obstacles and resources present in their daily working conditions – as evident in the high score on the contextual scale of the ENTRÉE TR questionnaire. High scores on the contextual scale indicate lived knowledge of contextual enablers and constraints

Post-intervention increases in teacher professionalism and subsequent qualitative themes illustrate that even in challenged educational contexts, coping capabilities connected to well-developed professional identities (academic caregivers and nurturers) have helped teachers stay committed to teaching quality (Cross & Hong, 2012). Therefore, in high-risk ecologies, teachers' commitment and moral purpose of improving the lives of the disadvantaged learners they teach are significant protective resources that drive teachers to deliver quality education.

Sub-theme 1.1, “Teacher professionalism enables quality education”, illustrates that teachers’ sense of pride in their professional identity is characterised by positive affect, motivation and commitment to teaching. This sub-theme was mirrored in increases in quantitative scores for both teacher motivation and teacher emotion. *Teacher motivation* measures teachers’ primary motivations to teach and combines optimism, intrinsic motivation and enthusiasm. Motivation is related to personal resources, such as a sense of purpose and meaning, a key aspect of resilience (Hong, 2012). “Isithebe” teachers reported a sense of meaning and purpose as significant for their professionalism.

Qualitative data showed that for the teachers in my study, pride in their teacher professional identity was an important resilience-enabling pathway that they drew from to provide good quality education despite structural disparity and cumulative hardship. Research has highlighted that teacher PD enables professional identity and improves T&L practices as important protective resources that enable TR (Flint et al., 2019; Mansfield et al., 2016). A novel insight generated from this sub-theme was that teachers foregrounded pride in their learners’ success and hope for a better future as pertinent to their professional identities. Therefore, teachers’ strong professional values and commitment to ongoing PD function as a resilient enabling pathway allowing quality education.

Teachers’ accounts in my study point to issues related to how they experience their professionalism, particularly issues of commitment to the teaching profession and commitment to the learners they teach. South African teachers need to teach within the context of resource-constrained schools, with large class sizes, learners' poor discipline, and poor PD prospects (Ramos & Hughes, 2020; Sutcher et al., 2019). Despite teachers' chronic and cumulative stressors in their everyday work life, the data was silent on teachers’ frustrations about these stressors.

Furthermore, Isithebe created a PRA climate between teachers and researchers where teachers were trained to implement the intervention. Studies conducted over the past several years have identified key characteristics of effective PD, including inquiry, reflection, and choice (Flint et al., 2019). Therefore, PD that highlights “imaginative ideas, allows flexibility, and emphasizes critical ideologies can leave a lasting and ongoing impact” (Flint et al., 2011, p. 735), as evident in the “Isithebe” findings. Flores (2018) also found that high indices of professional values and teacher professionalism influence teachers' ability to resile.

Teacher resilience research focused on interpersonal-level teacher well-being strategies and conditions that include personal and professional relationships with colleagues, learners, parents, communities, management and school leaders (Ainsworth & Oldfield, 2019; Papatraianou & Le Cornu, 2014; Proeschold-Bell et al., 2021). TR also explored support networks (Beltman et al., 2018), community engagement (Peixoto et al., 2018) and support for teacher professional development through collaboration, networking and tangible

assistance (Day & Gu, 2013; Gu & Day, 2013; Mansfield et al., 2012; Papatraianou & Le Cornu, 2014). The “Isithebe” intervention functioned as a PD opportunity by leveraging social networks that helped teachers learn from peers and other schools. Additionally, research on teacher intervention studies has shown that positive relationships between teachers and colleagues promote teachers’ learning and a better work environment (Proeschold-Bell et al., 2021). Teachers’ PD was found to help them deal with job-related distress (Barbieri et al., 2019). My study shows that by utilising social networks among teachers, intervention gatherings created intentional opportunities for teachers to connect, network, debrief and share ideas. It is plausible that these intervention characteristics contributed to teacher PD and plausibly enabled quality education.

5.4.3.3 T&L Competencies Enables Quality Education

T&L competencies focus on educational and subject matter knowledge and skills closely linked to teacher efficacy beliefs and teacher sense of coherence (Raath & Hay, 2016). Teachers need to have T&L competencies to draw upon classroom teaching and management competencies to deliver quality education (Gu, 2018; Raath & Hay, 2016). Current research on T&L generally has not accounted for classroom or school-level factors, with limited research in developing countries, including African countries (Bosch, 2020; Moalosi, 2013). Nonetheless, T&L competencies continue receiving global attention from researchers since they are highly relevant for delivering quality education (Kleinsasser, 2014). Exploring how T&L competencies enable quality education in a challenged context can inform knowledge in the Global South of how teachers resile in the profession despite chronic and cumulative risk factors. Categories of T&L competencies demonstrated in SC intervention included creativity, teacher adaptability, and compassion for learners. In line with this, teachers in my study acknowledged the importance of T&L skills in providing quality education. These findings align with previous research that suggests a strong sense of teacher efficacy and teacher sense of coherence contribute to TR (Gu & Day, 2007; Hong, 2012; Peixoto et al., 2018). “Over time research has also consistently found that teachers’ self-efficacy beliefs as to whether they have the capacity to effectively help children learn and achieve are one of the most important factors influencing teachers’ resilient qualities” (Gu, 2018, p. 17).

Teachers working in South Africa have to manage many poverty-related obstacles in education, such as a lack of books and T&L materials, large classrooms with too many learners, poor facilities, low pass rates and inadequate school structure (Ebersöhn, 2015; Thaba-Nkadimene, 2020). The data was silent on how these challenges negatively impact T&L competencies. High pre-intervention scores for self-efficacy and teacher efficacy plausibly resonate with literature that highlights a good perception of teacher efficacy and appears to anticipate success in the classroom despite external conditions like a low socio-

economic context and an unsupportive parental home or school climate (Wosnitza et al., 2018). In addition, teachers with high self-efficacy beliefs may be more open to using a variety of new ideas, resources or pedagogical approaches to support and meet the needs of their learners (Heneman et al., 2006; Skaalvik & Skaalvik, 2010).

Teachers' sense of coherence plays an important part in resilience and involves an orientation that the world is manageable and meaningful (Antonovsky & Sourani, 1988; Peixoto et al., 2018). Quantitative data shows scale increases for *teacher sense of coherence* that can be linked to quality data in Sub-theme 1.2, "T&L competencies enable quality education". Perceiving one's world as manageable would entail the ability to plan and carry out the steps necessary to complete a specific teaching task in a specific context (Raath & Hay, 2016). Based on a sense of coherence, teachers evaluate their adverse conditions based on their comprehensibility and manageability (Peixoto et al., 2018; Raath & Hay, 2016). T&L competencies meaningfully contribute to teacher efficacy, sense of coherence, and teachers' ability to remain committed to the profession (Day, 2012; Gu & Day, 2007; Hong, 2012). Teacher efficacy is an important associated factor for teacher well-being, resilience and job satisfaction (Beltman et al., 2011; Ebersöhn et al., 2020; Proeschold-Bell et al., 2021). Teacher efficacy, as a result, may affect positive learner outcomes, achievement, and learners' sense of efficacy which contribute to quality education (Fackler & Malmberg, 2016; Gonzalez-DeHass & Willems, 2016).

Teachers in this sample demonstrated their teacher efficacy and sense of coherence regarding important educational skills required "to be a good teacher". Therefore, for Isithebe teachers, their efficacy beliefs about their ability to deliver effective educational competencies, including *creativity, teacher adaptability* and *showing compassion for learners,* were important for their resilience processes.

Resilient teachers are enthusiastic about new ideas and approaches to meet their learners' needs (Wu et al., 2020). With regards to *creativity as an important T&L competency,* the SC intervention demonstrated the benefits of arts activities for teacher-learner creativity that plausibly enabled quality education. Research on the benefits of art therapy interventions, in general, has highlighted many benefits, including increased coping skills, reduced stress, reduced negative affect, reduced depression and hostility, and increased self-esteem (Dye, 2018; Maujean et al., 2015; Slayton et al., 2010; Stepney, 2017). When teachers participated in the intervention's art activities, they appreciated the benefits of teacher-learner creativity. The intervention arts activities helped teachers connect with their creativity. Reportedly, teachers then used creative processes with their learners to pursue quality education. The enhancement of creativity for both teachers and learners contributed to teaching and learning competencies and foregrounded the benefits of arts activity interventions with teachers working in challenged contexts.

Adaptability, flexibility and openness to life-long learning have been established as important aspects of TR (Beltman et al., 2018; Collie & Martin, 2016; Peixoto et al., 2018). Furthermore, to increase opportunities for teacher well-being, studies have advocated providing teachers with alternatives for collegiality and autonomy in the classroom (Fouché et al., 2017). “Isithebe” served the dual function of creating a resilience-enabling platform for teachers to engage in SC amongst each other and open communication, which enabled openness to change and adaptability. This resonates with research that maintains that “teachers' well-being may be aided by job autonomy and flexibility” (Proeschold-Bell et al., p. 34). Furthermore, resilience studies have demonstrated the association between increased teacher resilience and effective adjustment and flexibility to accommodate constant change (Bobek, 2002; Gu & Day, 2007; Peixoto et al., 2018). The SC intervention afforded teachers an opportunity for lifelong learning and to be flexible and open to criticism, contributing to teacher adaptability, which plausibly enabled quality education.

For the post-intervention data, teachers reported that *showing compassion for learners* promoted was important for their resilience processes. It has been found that compassion for oneself and others directly affects work engagement and promotes better work outcomes (De Stasio et al., 2020; Sharp and Jennings, 2016). In other studies, “teacher-student closeness predicted teachers sense of self-efficacy, and that self-efficacy was significantly correlated with satisfaction among teachers” (Proeschold-Bell et al., 2021, p. 27).

Showing compassion for learners highlights important contextual aspects that have been found significant for teachers working in South Africa, including showing empathy and instilling hope in learners (Coetzee, 2013). “Teachers working with children from disadvantaged backgrounds often see their teaching practice as acts of caring and compassion as they believe these kinds of children need more attention and support” (Cross & Hong, 2012, p. 965). According to Ben-Peretz et al., teachers working with children from disadvantaged backgrounds find themselves “acting in the role of caregivers” (Ben-Peretz et al., 2003, p. 280) by providing the learners with advantages that society and history have taken from them. Therefore, understanding the impact of the various macro-level factors on the learners’ lives made the teachers empathetic to the learners’ and parents’ plight and helped to pacify negative emotions (Cross & Hong, 2012).

Teacher emotion increased significantly between pre- and post-intervention scores. Teacher emotions affect and are affected by T&L and by the relationships between learners, teachers, co-workers and school leaders (Alvarado & Bretones, 2018; Cross & Hong, 2012). The emotional fulfilment of teachers can be broken down into three main categories: positive emotions deriving from positive interaction with learners and co-workers, positive emotions because of positive self-reflection and positive emotions relating to positive working conditions (Cross & Hong, 2012). Additionally, the negative emotions teachers commonly experience

include frustration, lack of control and dissatisfaction, which have been shown to result in teacher burnout, distress and attrition (Alvarado and Bretones, 2018; Fiorilli et al., 2019). Studies demonstrated that teachers who get emotional and social skills training might be less likely to experience burnout (Onuigbo et al., 2018; Ugwoke et al., 2018). Post-intervention data showed more teacher accounts of showing compassion for learners, which contributed to more teachers' experiences of positive emotions derived from interactions with learners. In this way, "Isithebe" provided informal emotional and social skills training to teachers that enhanced positive emotions and plausibly alleviated negative emotions that have been shown to lead to teacher burnout.

South African teachers face chronic and cumulative stressors that result from a unique socio-political context (Ebersöhn, 2015). Therefore, these stressors would be expected to be evident in the data. However, this was not the case in the qualitative or quantitative analysis. The quantitative scores of TR of participating teachers were high before and after the intervention despite working amidst severe deprivation, which may be connected to high scores in teacher contextual knowledge ("teacher lived knowledge of the hardship of the space in which they work", Ebersöhn et al., 2020, p. 26) before the intervention. There was no significant increase in quantitative scores on the contextual pathway scale before and after the intervention. This result signifies that teachers are aware of the obstacles they face in their daily lives and have become accustomed to the cumulative and chronic risk factors of the space in which they work (Coetzee, 2013; Ebersöhn, 2019). "A challenged educational space results in fewer opportunities due to resource constraints, with few services and avenues available to develop human and social capital" (Ebersöhn et al., 2020, p. 2). Yet, despite these at-risk circumstances, teachers continue to maintain a sense of professional pride and deliver quality education. Qualitative data from Isithebe teachers indicates that showing compassion to learners and having a sense of value in their work contributes significantly to the psychological resilience that is evident in this adaptation to chronic and cumulative risk.

5.4.3.4 Leveraging Social Networks to Enable Quality Education

QUAN+QUAL findings confirm the significance of leveraging social networks to overcome challenged situations and sustain teacher passion and commitment to teaching (Ebersöhn, 2012; Mansfield et al., 2018; Proeschold-Bell et al., 2021). TR processes were framed within an Afrocentric cultural belief system for teachers in my study. Leveraging social networks for teacher PD was evident at pre-, process and post-intervention data points, indicating teachers' proclivity for connection and support-seeking. When considering the challenged educational context in which teachers work, leveraging social networks as an interpersonal resilience-enabling pathway may lead to unexpected, unpredicted or better than expected positive outcomes (Ebersöhn, 2014; Mansfield et al., 2016). Process and post-intervention data

indicate enabling pathways in which “Isithebe” encouraged teachers to leverage social networks between teachers and schools that plausibly enabled quality education.

Moreover, intervention studies have identified that constructive social networking between co-workers promotes teachers’ learning and professional development and help teachers deal with job-related stress (Framke et al., 2019; Wu et al., 2020). School-based interventions have shown considerable value in South African TR by fostering asset-based social support (Ferreira & Ebersöhn, 2011, 2012; Theron, 2013). Teachers working in a challenged educational space have become accustomed to their workspace's cumulative and chronic risk factors. Therefore, teachers draw on protective resources to adapt to and overcome challenged situations. “Isithebe” gatherings and activities thus enabled teachers to link together assets in their communities.

South African research on social support management in schools that found flexibility and open communication strategies enabled different role players to manage resources and mobilise assets by linking them through social networks (Ebersöhn & Loots, 2017; Gu and Day, 2018). Isithebe gatherings increased PD opportunities by leveraging social networks between teachers and schools. This is consistent with previous research that emphasises the importance of collaborative partnerships as a key to teachers' roles as change agents in challenged spaces. They can join forces in problem-solving between role-players and peer coaching and cooperate to acquire new skills by sharing, observing, and teaching one another (Ainsworth & Oldfield, 2019; Ferreira et al., 2013; Ugwoke et al., 2018).

5.4.3.5 Social Connection Enables Occupational Well-being

Alternatively to teacher stress, burnout and attrition, teacher resilience relates positively to occupational well-being (Ainsworth & Oldfield, 2019; Bobek, 2002; Brouskeli et al., 2018; Cefai & Cavioni, 2014; Day & Gu, 2013; Ebersöhn, 2014; Gu & Li, 2013). Well-being and job satisfaction may indicate teacher adaptation and is vital for teacher retention within the teaching profession (Ainsworth & Oldfield, 2019; Bobek, 2002; Day, 2012; Jackson & Rothmann, 2005; Mansfield et al., 2016). Teachers who experience social connection with their co-workers are more likely to express occupational well-being (Wu et al., 2020). Several studies have promoted the encouragement of social support from school management and co-workers to improve occupational well-being (Fiorilli et al., 2019; Proeschold-Bell et al., 2021). Workplace social capital that allows teachers to access resources, has also been identified as a key factor in boosting teachers' well-being (Framke et al., 2019). The documented benefits of social-emotional competence for teachers include reduced stress, reduced risk of burn-out, improved self-efficacy and greater job satisfaction (Anari, 2012; Collie & Perry, 2019; Gu & Day, 2013; Mansfield et al., 2016). Other scholars, similarly, have found that social-emotional competence in teachers improved self-efficacy (Chan, 2004; Hong,

2012; Tait, 2008), mediated the effects of stress (Tait, 2008) and reduced the risk of burnout (Chan, 2006). Several scholars have found that social-emotional competence in teachers was associated with greater job satisfaction (Anari, 2012; Collie & Perry, 2019), which has been acknowledged to support teacher resilience (Oke et al., 2016). The introduction of an SC intervention (supplemented by art activities and meeting in a non-formal manner) promotes the use of relational protective resources and social-emotional competence that support occupational well-being.

In South African literature, Theron (2018) found social and spiritual cohesion an important factor in maintaining teacher resilience, while Ebersöhn (2012, 2013, 2019) has identified social-emotional competence as an enabling factor for TR. Ebersöhn suggested that social-emotional competence in an Afrocentric culture is key in enabling resilience through the cultural mechanism of "flocking." As social-emotional competence in resource-constrained settings characterised by Afrocentric values is important for TR, it is not surprising that an SC intervention enables occupational well-being. QUAN+QUAL data confirmed the benefits of SC for strengthening SC competence for TR. These benefits included increased social-emotional competence, improved networking capacity, opportunities for debriefing and experiencing positive emotions.

In addition to internal traits contributing to high TR, awareness and access to relational pathways support TR, especially in high-risk ecologies (Ebersöhn, 2012, 2013, 2019). The findings in my study show that when teachers participate in an SC intervention, occupational well-being is enabled in that they experience opportunities for social connection within and across schools. "Isithebe" gatherings helped teachers debrief, relax and connect with their co-workers. As a result, teachers reported that they experienced positive emotions and social-emotional competence that enabled occupational well-being.

5.4.3.6 Acknowledgement of Occupational Inputs Enables Occupational Well-Being

"Teachers are motivated by the success of their students and take pride in a range of aspects of student success, including test scores, recognition, raising good citizens, and future career and personal success" (Proeschold-Bell et al., p. 40). Being acknowledged, teachers found their work to be an enjoyable and rewarding experience (Barbieri et al., 2019). The SC intervention highlighted the importance of acknowledging occupational inputs, plausibly enabling occupational well-being. This viewpoint corresponds to international and national research that reports that teacher-learner relationships significantly impact teachers' developing teacher identity and occupational well-being (Cross & Hong, 2012; Evans, 2017; Le Cornu, 2013; Loots et al. 2012; Proeschold-Bell et al., 2021). Besides class time, teachers are responsible for various administrative tasks, extra-curricular activities, discipline,

classroom management, academic learner support and parental communication (Barbieri et al., 2019; Brunetti, 2006; Castro et al., 2010; Ebersöhn, 2015). In light of all these challenges inherent to the teaching profession, the “Isithebe” teachers in my study, like teachers in other parts of the world, specifically drew inspiration from positive feedback from learners. Teachers reported on the importance of experiencing positive emotions to cope with the demands of the profession; however, the data was silent regarding the negative emotions teachers experience as a result of learner misbehaviour.

TR constraints across teacher micro- and mesosystems that could interfere with acknowledgement of occupational inputs include poor classroom management and PD prospects, and a lack of resources, community support and parental involvement (Alam, 2015; Ebersöhn, 2017; Gakure et al., 2013; Lavoie & Benson, 2011; Muyaka, 2018). The data was silent on poor classroom management, lack of community involvement, limited PD and poor PD prospects. However, teachers reported on lack of resources, limited parental involvement, and additional roles and responsibilities under themes discussed in Chapter 4.

Additional constraints for TR in a South African context include burnout, stress, difficulty asking for assistance and being overwhelmed by multiple demands, roles and responsibilities (Ebersöhn, 2015; Mansfield et al., 2018). It has been found that teachers can “can cope with negative experiences as long as they constantly experience positive episodes, such as strong relationships with students” (Mansfield et al., 2018, p. 57). Therefore, positive experiences with learners (acknowledgement of occupational inputs) become particularly relevant for teachers working in challenged contexts, as these positive experiences help them withstand the many obstacles they face daily.

5.4.3.7 Experiencing Occupational Purpose Enables Occupational Well-being

In addition to acknowledging occupational inputs as crucial for “Isithebe” teachers, experiencing occupational purpose enables occupational well-being. This viewpoint resonates with previous research on TR that has consistently highlighted that teachers with “inner drive, strength and optimism to help every child learn, grow and achieve” (Gu, 2018, p. 25) can daily make a difference in their classroom (Coetzee, 2013; Day & Gu, 2015). Teacher resilience is related to the strength, purpose, and conviction of teachers’ vocation to serve (Day & Gu, 2010). Purpose and conviction enable teachers to manage challenges during uncertain and inevitable, recurring setbacks (Brunetti, 2006; Gu, 2018; Gu & Day, 2013).

Motivation is related to personal resources such as a sense of purpose and meaning, a key aspect of resilience (Hong, 2012). Intrinsic motivation or "inner drive" (Hong, 2012, p. 432), a sense of self-belief (Le Cornu, 2009), and self-efficacy are all personal resources that help teachers be more resilient (Mansfield et al., 2016). Motivation is enhanced through supportive school cultures that create opportunities for meaningful participation and

relationships with others (Gu, 2018). Personal support networks, particularly mutually empathic and responsive ones, are increasingly viewed as vital for supporting resilience (Le Cornu, 2013). This finding is consistent with the work of Brunetti (2006), that has identified "devotion to learners, the pursuit of personal and professional fulfilment and support that they received from administrators, fellow teachers and the organisation and management of the school" (p. 821) as major factors in determining TR.

Research has highlighted that teachers' need for recognition to maintain their sense of meaning and value in their work was strongly related to their well-being. "Burdensome administrative work, seen as lacking meaning, displaces other work considered meaningful, and may lead to teacher burnout" (Proeschold-Bell et al., 2021, p. 10). Teachers, principals, parents and learners can all contribute to teacher well-being by showing respect for teachers and letting our teachers know that they matter and make a difference in learners' lives (Proeschold-Bell et al., 2021). The SC intervention created spaces where teachers could share anecdotes of receiving positive feedback from learners and how this gave them a sense of professional pride and occupational purpose, which plausibly enabled occupational well-being.

Resilience studies have demonstrated the association between increased teacher resilience and a strong sense of vocation (i.e., the call to teach or serve) (Day, 2012; Day & Gu, 2010; Hong, 2012). Altruistic motives for being a teacher have been identified as an important protective resource that predicts a positive outcome in the face of adversity (Ebersöhn, 2016). This point was particularly evident amongst the "Isithebe" teachers and especially relevant for teachers working in high-risk ecologies. They work with children who come from hugely challenged contexts. Working actively to shape a better future for these children becomes an integral part of their resilience process. "Isithebe" highlighted that teachers in my study foreground pride in their learners' success and hope for a better future as pertinent pathways to experiencing occupational purpose, which plausibly enables occupational well-being.

5.5 Conclusion

In Chapter 5, I presented an integrated analysis of TR quantitative results and qualitative findings and addressed the SRQ1: "How does TR compare pre- and post-intervention?" concerning all TR scales except the contextual scale. "Thus, following participation in an SC intervention, teacher professionalism was significantly increased, as was their emotion, motivation, sense of coherence, self-efficacy and teacher efficacy" (Ebersöhn et al., 2020, p. 26). Chapter 5 also answered SRQ3: "To what extent did the SC intervention with teachers in peri-urban primary schools enable TR?" The SC intervention enabled positive TR outcomes including quality education (enabled by teacher professionalism, T&L competencies, teacher

PD, leveraging social networks, creativity, teacher adaptability, and showing compassion); and occupational well-being (enabled by acknowledgement of occupational inputs, experiencing occupational purpose and social connection).

Chapter 6 provides further theoretical explanations of the results obtained, addresses my study's PRQ, and seeks to discuss my study's limitations and contributions to existing literature. Finally, recommendations for further research, practice and training are discussed.

6 Chapter Six: Conclusions and Recommendations

6.1 Introduction

The study aimed to investigate SC as a pathway to TR in a challenged educational space. The objectives involved establishing the TR and SC of peri-urban primary school teachers in a challenged context before and after an SC intervention to explore how an SC intervention may inform knowledge on TR. Chapter 1 discussed the purpose and objectives of my study and the theoretical frameworks relevant to my research. Chapter 2 reviewed the literature concerning SC and its positioning in resilience and TR literature, while Chapter 3 outlined my study's research methodology and data analysis strategies. In Chapter 4, I provided integrated QUAN+QUAL results to explore how SC compared pre- and post-intervention and presented a literature control for pre- and post-intervention findings. In Chapter 5, I presented integrated QUAN+QUAL results to explore how TR compared pre- and post-intervention and to what extent the intervention enabled TR.

The final chapter synthesises research findings to address the PQR: "How can an SC intervention with teachers in primary schools in a challenged space inform knowledge on TR?" (Section 6.2). I integrate the findings on TR and SC to discuss how an SC intervention informs knowledge on TR in a challenged educational environment. I discuss both confirmed and uncovered knowledge on how SC functions as a pathway to TR in challenged contexts and reflect on the RRR as the theoretical framework of my study. After that, I discuss my study's limitations (Section 6.3) and recommend future research topics and practices (Section 6.4).

6.2 PRQ: How can an SC Intervention with Teachers in Peri-Urban Primary Schools in a Challenged Educational Space Inform Knowledge on TR?

This section addresses the primary research question to add South African evidence to the emerging global teacher resilience knowledge base. In this way, I share insights into an evidence-based intervention used by teachers in a resource-constrained and structurally disparate South African context to promote teacher resilience. In the absence of structural support for teacher professional development pathways, I found that a school-level intervention that intentionally aimed at strengthening social connectedness assisted teachers to resile despite ongoing, multiple challenges and a high likelihood of distress. Figure 6.1 reflects an integration of Chapter 4 and Chapter 5 findings to address the primary research question

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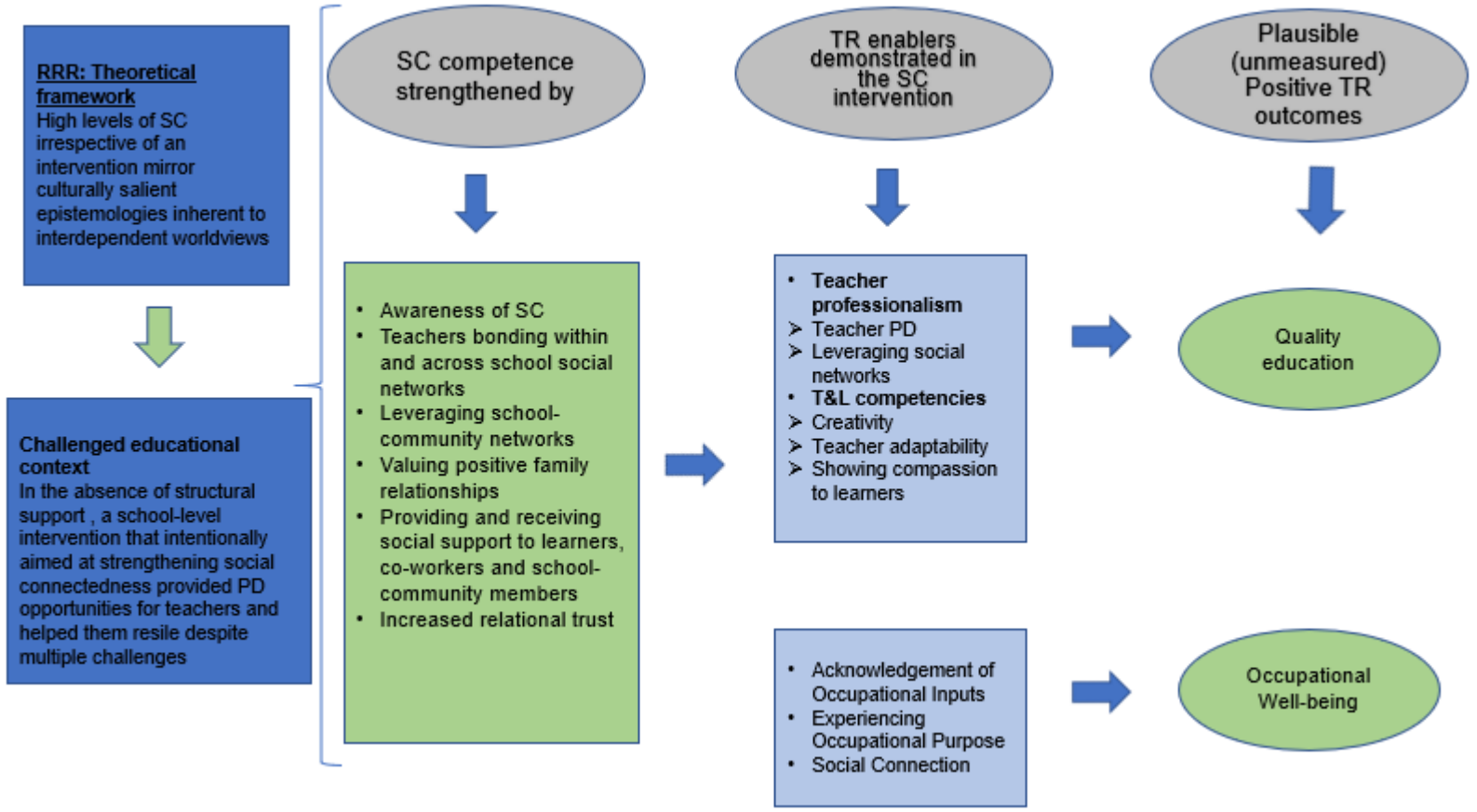
Figure 6.1

Integration of Chapter 4 and Chapter 5 Findings to Address the Primary Research Question



Occupational stress is a problem for teachers worldwide, and it significantly effects retention and education quality. Evidence from Africa is still scarce in the expanding knowledge base on teacher resilience. Evidence of teacher resilience interventions does not always speak to a resource-constrained and structurally diverse South African setting. What evidence can school role actors in the Global South use to help teachers resile in the face of multiple problems and a high likelihood of distress with insufficient structural support and unevenly distributed resources? The study aimed to see how useful a low-cost, school-level teacher resilience intervention could be in terms of not relying on structural resources and delivering teacher professional development while also leveraging the presence of a key Afrocentric sociocultural resource, namely social connectedness. The study's findings show that teachers' resilience in a challenged situation is encouraged when they get together monthly in arts and crafts activities, building a trustworthy space where they may support one another emotionally and professionally. When teachers from other schools use this social connectivity area, the reservoir of social resources for professional development and emotional support is expanded.

As discussed in Chapter 4, high levels of SC irrespective of an intervention "mirror culturally salient epistemologies inherent to interdependent worldviews" (Ebersöhn et al., 2020, p. 1), including Afrocentric indigenous knowledge systems centred on the principles of "Ubuntu", as seen in the sample population of my study. Plausibly participation in the Isithebe SC intervention was well received as the principles of SC resonated with the participant's Afrocentric identity. Following the intervention, teachers reported that participation in Isithebe encouraged them to value positive relationships and strengthened SC competence for TR. SC linked to Afrocentric values enabled resilience for teachers working in a challenged space regardless of the intervention, suggesting teacher beliefs and values regarding SC play a significant role in resilience. Isithebe increased opportunities for SC by foregrounding the value of social assets and streamlining the interplay of social resources across micro, meso- and exo-/macrosystems.

Teachers reported existing traits and pathways irrespective of intervention that included high social connectedness and valued building relationships, need for relatedness and belonging. After participating in an SC intervention, teachers reported a range of SC competencies "to give and receive implicit and explicit social support across relational systems" (Ebersöhn et al., 2020, p. 2). Additional enhanced SC competencies as a result of an SC intervention included a capacity for bonding within and across school social networks, leveraging school-community networks, valuing positive family relationships, and increased ability to trust others.

Informal teacher meetings, aided by arts activities enhanced teachers' social-emotional competencies (showing compassion for learners and social adaptability) and interpersonal social competencies (leveraging social networks, trust, and providing and

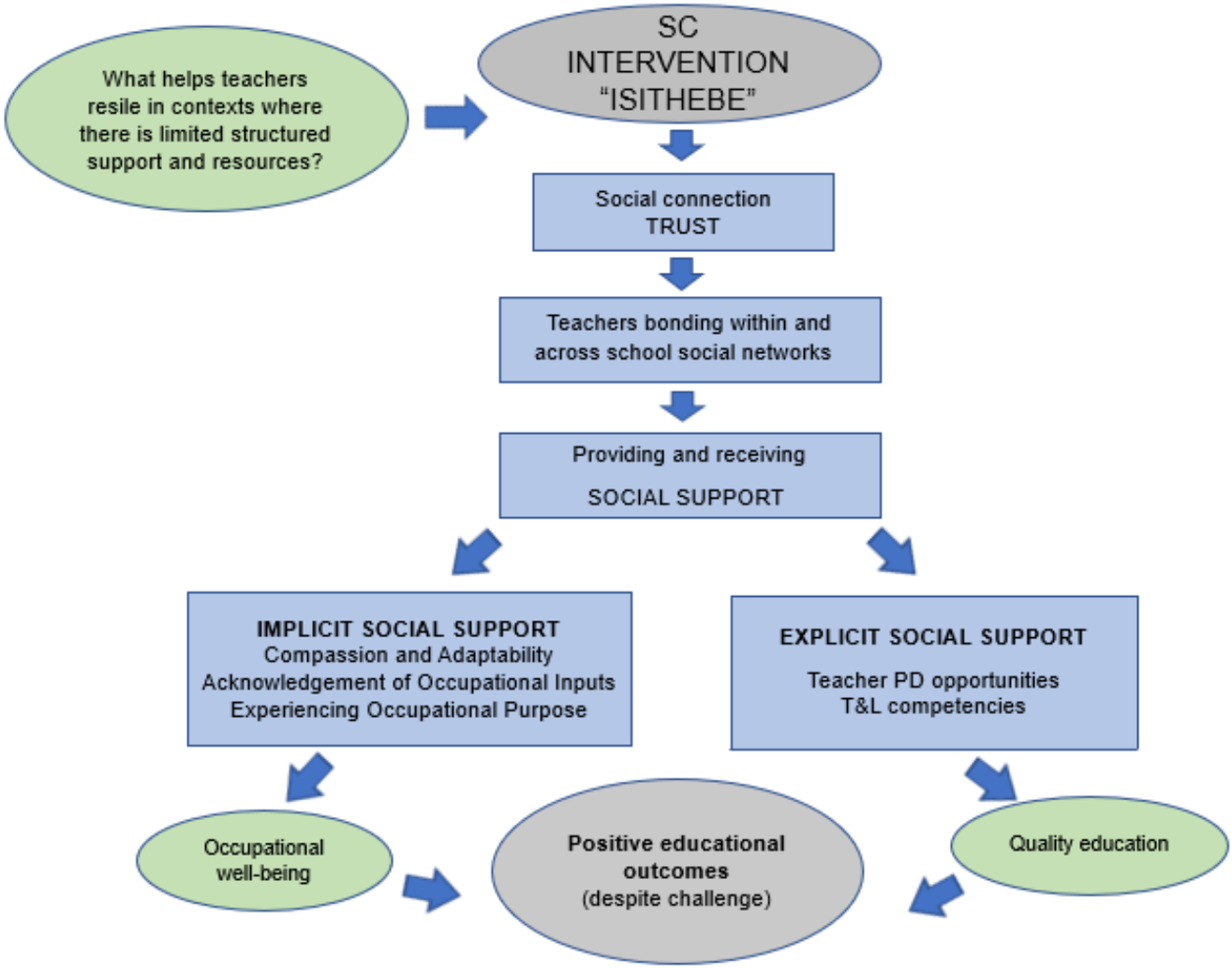
receiving implicit and explicit social support) plausibly enabled both occupational well-being and quality education.

"In South Africa, chronic poverty is widespread and compounded by unemployment and prolonged health risks and resilience required drawing on available and unique cultural and social resources, such as community building, developing partnerships, mobilising unused resources and applying for social development grants" (Ebersöhn et al., 2020, p. 4). Countries in the Global North have developed economies, and their educational systems have profited from infrastructure, teacher training, technology, and resources (Mansfield et al., 2018). Furthermore, Global North education systems benefit from developed economies, contributing to better-resourced environments. Not only are education systems in the Global South severely under-resourced, but the education systems are also relatively young when compared to those of developed contexts; therefore, Global South educational systems are not as settled yet in terms of knowing what works and what doesn't (van der Berg et al., 2016).

Participation in an SC intervention highlighted and expanded teachers' social repertoire by foregrounding aspects of social-emotional competence such as compassion and social adaptability. Leveraging social networks for teacher PD highlighted the benefits of arts activities for teachers. By utilising the benefits of art therapy techniques, the "Isithebe" intervention was created to provide deliberate spaces for informal contact between teachers. The "Isithebe" "social connectedness intervention functioned to deliberately strengthen a web of SC between teachers, their family members and friends, and broader school communities" (Ebersöhn et al., 2020, p. 46). Informal teacher meetings, aided by art activities, enhanced teachers' social-emotional competencies (compassion, adaptability, increased trust that led to providing and receiving explicit and implicit social support) that enabled both occupational well-being and quality education. Figure 6.2 depicts how the "Isithebe" SC intervention informs knowledge on TR in challenged contexts with limited resources.

Figure 6.2

How the "Isithebe" SC intervention informs knowledge on TR in challenged contexts with limited resources



Social capital theory proposes that people are most likely to thrive in communities that cultivate trust, reciprocity, and participation in formal and informal support networks (Framke et al., 2019; Roffey, 2012; Sullivan & Johnson, 2012). "Isithebe" teachers working in high-risk ecologies face a multitude of stressors in their work environment, such as multiple demands, different roles and responsibilities, lack of resources and infrastructure, poverty, low income, inadequate service delivery, heavy workload, lack of time and burnout. Adapting to chronic adversity requires a lifeline chain of resilience, connecting incidences of adaption (i.e. mini-processes of adaptation) consecutively rather than as a once-off incidental process portraying adversity in the beginning and a positive adaptation at the end (Ebersöhn, 2014). Examples of this lifeline chain of resilience from "Isithebe" teachers included meeting in an informal manner outside of formal staff-related interactions, opportunities for teachers to bond within

and across schools, an appreciation that they are not alone but rather experiencing problems together; and the ability to reach out for support and ask for help.

The micro and mesosystems of teachers comprised of proximal personal systems that include learners, co-workers, and support systems. From a socio-ecological perspective, risk factors and protective resources exist across all these systems. The activities throughout the intervention were aimed at fostering SC between teachers and outside of the school environment by encouraging teachers to build closer connections with significant others. "Isithebe" arts-based activities helped teachers build relationships in their church communities by exploring art ideas with the members of their church. SC related activities encouraged them to reach out to long lost friends and encouraged teachers to make quality time for their families. In this way, "Isithebe" mobilised relationship building throughout various areas of the teachers' lives, which deepened their sense of SC.

Teachers are encouraged to engage in supportive relationships, and research has highlighted the importance of joining support groups and developing professional networks (Framke et al., 2019; Gu & Day, 2013; Le Cornu & Ewing, 2008). However, in challenged educational spaces where overt inequalities persist and the education system is split by wealth and socio-economic status (SES), formal interventions for staff are unlikely to be implemented (Maarman & Lamont-Mbawuli, 2017). "Isithebe" facilitated the opportunity for teachers to create these support structures amongst themselves, between themselves and within and across schools. "Isithebe" functioned as an emotional support group and a professional networking opportunity for the teachers they reported as resilience enabling. Furthermore, previous research shows that teachers benefit greatly from social-emotional competencies that enable communication skills to engage effectively with learners and parents (Gu & Day, 2013; Le Cornu & Ewing, 2008). SC, supplemented by art activities and playful meetings, expanded teachers' social repertoire by foregrounding aspects of social-emotional competence such as empathy, social adaptability, and trust, which contributed to their TR.

Despite living and teaching in resource-constrained settings characterised by much adversity, the teachers in the sample showed a high level of SC. It was not surprising that the SC of participating teachers was strong, as it has been demonstrated that SC represents culturally relevant epistemologies intrinsic to interdependent worldviews, such as Afrocentric indigenous knowledge systems. Based on findings from studies with teachers in challenged South African contexts, the RRR theory suggests that the SC of teachers in challenged contexts will be high as teachers will "flock" together in times of collective distress (Ebersöhn, 2019). In an African worldview, a connection with social and emotional ties is emphasised instead of the stand-alone individual. These ties form part of the obligations that every community member has (Ebersöhn, 2014; Letseka, 2013; Owusu-Ansah & Mji, 2013). "Ubuntu" potentially explains why teachers in my study reported high levels of SC in the areas

of Building Relationships, Need for Relatedness, and Belonging vs Loneliness/Isolation. However, it's also possible to conclude that teachers' SC was high due to their location in the resource-constrained Global South contexts because teachers show high levels of SC in times of collective distress by flocking together to share resilience-enabling resources.

Furthermore, my study's findings show that the teachers in the sample were skilled at creating and maintaining relationships. Because the ability to form and maintain connections is a characteristic of social competence and the ability to create and maintain relationships, the findings suggest that the teachers in this sample have high levels of both. This finding is in line with global research that has indicated that teachers with high social-emotional competence can thrive in both their professional and personal life (Collie & Perry, 2019; Gu & Day, 2013) and have better workplace outcomes (Collie & Perry, 2019; Gu & Day, 2013).

According to findings on the impact of social-emotional competence on TR worldwide (Collie, 2017; Collie & Perry, 2019; Gu & Day, 2013) and in South Africa (Ebersöhn, 2012, 2013, 2019), the presence of high social-emotional competence in the sample of teachers could be an indicator of a resilience-enabling pathway for teachers, both in well-resourced, structurally-equitable areas and in areas characterised by deprivation and socio-economic disadvantage. Social competence (Ebersöhn et al., 2015), emotional regulation (Coetzee, 2013), and relational competence (Edwards, 2016) were revealed to be enabling pathways for TR among teachers from resource-constrained settings in South Africa. The findings of my study support the RRR theoretical framework that proposes teachers with strong social-emotional competence are more likely to engage successfully in the "Ubuntu"-Afrocentric cultural mechanism of flocking, and so resile through the use of collective social support (Ebersöhn, 2012, 2013, 2019).

The theoretical framework guiding my study specifically drew out instances of resilience-enabling pathways, and how the teachers reported on these pathways is substantial. The significant increases in SC after participation in the intervention further confirm the benefits of SC as a resilience-enabling pathway, especially for teachers in high-risk spaces. The findings of my study showed that an SC intervention (i) created additional space for the teachers to further strengthen their proclivity for SC as resource management, and (ii) strengthen and develop relationships both inside and outside of the classroom. Furthermore, the introduction of an SC intervention not only strengthened relationships between the teachers but also (i) promoted and prioritised SC in the lives of teachers, as seen by teachers' expanded repertoire to value positive relationships, (ii) increased teachers' reported ability to trust others (iii) and expanded their capacity for providing and receiving of implicit and explicit social support.

In a different context to that of the more commonly researched Global North and Eurocentric contexts, this study contributes evidence of an accessible, school-level

intervention that, when implemented with teachers working under extreme challenges and with constrained structural support, connects them socially to forge trusting school communities. The socially connected spaces enable teachers to capitalise on bonded networks within and across schools and school communities. In this intentionally forged socially connected community, teachers provide and receive compassionate implicit social support to acknowledge one another and a shared career purpose and use pragmatic explicit social support to share teaching and learning competencies and opportunities for professional development. Plausibly, teacher well-being and quality education are enabled by these social connectedness accomplishments.

6.3 Limitations of the Study

My study's limitations include reliability issues with the REPSSI SC questionnaire, small sample size, lack of control schools, limited demographics, possibility of overly positive reporting, and potential language difficulties.

I used the ENTRÉE TR and the REPSSI SC questionnaires for the quantitative component of my study. The ENTRÉE teacher resilience questionnaire yielded an acceptable description of reliability with a Cronbach alpha coefficient of above .7 for all scales, except the Teacher Emotion scale, which had a Cronbach's alpha coefficient of .636.

The REPSSI SC questionnaire presented more challenges concerning scale reliability. Scale 6 of REPSSI only consisted of one item, making meaningful analyses impossible. Finally, many participant responses on the REPSSI questionnaire were invalid for the questions on external SC (number of social connections), as participants filled in qualitative responses such as "More than one" or "More than I can count" instead of numerical values. These inconsistent responses meant that statistical analyses were not performed on these questions, therefore, a discussion on external SC was not included in my study. It is suggested that further research using the REPSSI SC questionnaire include analyses of the questions on external SC.

The REPSSI SC questionnaire does not yet have a published technical manual and has no documented reliability or validity coefficients. The measure, however, was piloted in 2017 as part of a social connection study with care workers in challenged environments in Swaziland, laying the framework for future research (Bandeira & Mazibuko, 2017). Because my study is conducted in a similar limited environment, there is a level of transferability between the two investigations. So, the findings of both studies could be compared in the future to determine the reliability and validity of the SC scale (Kumar, 2011). As the REPSSI SC questionnaire's reliability and validity have not been established, these limitations must be considered when evaluating the findings of analyses to retain the study's rigour (Maree, 2019). Furthermore, my study's sample size (n = 36) is insufficient for internal validity analysis, as a

sample size of at least 100 is necessary for meaningful factor analysis (Kalkan & Keleciolu, 2016).

It has been acknowledged that there are many unique obstacles to the effective implementation of school-based interventions, including systemic barriers, practical and methodological challenges in conducting and evaluating such programs (Durlak & DuPre, 2008; Zimmerman, 2017). The pre-intervention sample size (n = 36) was relatively small. This number changed throughout different data collection points (n = 30 attended the intervention training in March 2019, n = 30 attended the teacher-researcher meeting in May 2019, n = 30 teachers attended the teacher-researcher meeting in July 2019, and n = 15 teachers attended the post-intervention in September 2019). Seven additional post-intervention questionnaires were collected via email, giving a total of 22 completed pre- and post-intervention questionnaires. Reasons for fluctuating teacher attendance may include teachers being overwhelmed with personal and professional responsibilities, logistical challenges for teachers to arrive at Isithebe meetings, and some teachers possibly being ill on the days of gatherings.

Following intervention design principles, it was expected that at least one of the schools would opt out of the intervention phase and serve as a control group. Following a delayed intervention model, the intervention could then be implemented with teachers from this school following post-intervention testing (Gravetter & Forzano, 2018). However, none of the schools opted for a delayed intervention model, and consequently, there was no control group. Therefore, there were no comparative findings on TR and SC in the absence of the intervention with teachers. Thus, the absence of a control school and the small sample size of this study do not lend themselves to in-case analysis or generalisability. In terms of external validity, the generalisability of the findings of my study is constrained to public peri-urban primary school teachers from Quintile 3 schools in resource-constrained, urban areas of the Nelson Mandela Municipality of the EC, South Africa. In terms of demographics, most participants were females over 40 years of age. Only four teachers in the sample were under the age of 40, and there were only two men in the sample (n = 36, F = 34, M = 2), implying that the results and findings from this study could differ in other contexts and other genders.

Although generalisability of my study is limited, the value of transferability of my study's insights include understanding, measuring and describing the impact of SC on resilience in teachers in primary schools within a very specific context of challenge. My study's results and findings may be comparative to similar settings (teachers in peri-urban primary schools in challenged spaces), and a small data set description. The results from the quantitative data cannot be generalised to male teachers, high school or pre-primary school teachers, schools in well-resourced areas, or teachers from other cultural and ethnic backgrounds. In addition, the transferability of qualitative findings is limited to (i) education spaces characterised by similar structural disparity challenges, (ii) peri-urban primary schools, (iii) mostly female

teachers of around 50 years of age with 19 years of teaching experience on average, and (iv) tertiary teaching qualifications.

Quantitative scores of TR and SC of teachers in schools challenged by severe deprivation were high at both pre- and post-intervention testing. High baseline scores of SC could indicate culturally salient epistemologies inherent to interdependent worldviews, including Afrocentric indigenous knowledge systems. However, high baseline scores for SC and TR could also be explained by the Dunning-Kruger effect. “The Dunning-Kruger effect is a hypothetical cognitive bias stating that people with low ability at a task overestimate their ability” (Dunning, 2011). Staden and Zimmerman (2017) discovered various challenges when working with teacher questionnaire data. They found evidence of overly positive reporting as evident from statistically impossible positive responses to various questionnaire items. Overly positive responses raise the question of whether teachers misunderstood some of the questions or whether their responses point to aspects of social desirability in attempts to provide an overly positive image of themselves.

Data from the demographic questionnaire indicates that participants’ home language was mainly IsiXhosa, and, as such, potential language difficulties in understanding the questionnaires is a limitation of my study. This limitation may have potentially influenced responses, resulting in non-response or affirming responses resulting in high pre- and post-intervention scores.

The limitations of using quantitative measures to explore teacher connectedness and SC within a post-colonial space were anticipated. The study relied on an MMR design to integrate analytic procedures to transfer evidence across qualitative and quantitative methodologies to provide stronger interpretations of research questions.

6.4 Recommendations

Based on findings and the limitations of the study, the following recommendations are made for (i) future research in the field, (ii) the REPSSI SC and the ENTRÉE TR questionnaire, (iii) the Isithebe manual and intervention, and (iv) future well-being agendas in education. The findings of my study emphasise the relevance of SC and supportive relationships for teacher resilience across several domains. Resilience research has moved to understand the interplay between internal traits and external ecologies that support resilience building. Individual traits and assets are supplemented with interpersonal protective resources found within ecologies. Interventions similar to Isithebe can draw out and highlight interpersonal protective resources within high-risk ecologies. SC appeared to be an available protective resource on which teachers can draw to buffer against chronic and severe challenges to their well-being and job performance in a space of deprivation and challenge. Therefore, it is recommended that similar interventions in challenged spaces be implemented to enable teacher well-being.

Furthermore, creating school communities that foster a culture of trust and a sense of belonging among teachers and learners promises benefits for TR.

6.4.1 Recommendations for Future Research

- Due to my study's limited sample size (36 and 22 teachers at pre- and post-intervention, respectively), a follow-up investigation on the benefits of an intentional SC intervention in challenged spaces involving a bigger sample is recommended.
- Due to the homogeneous nature of my study's sample - with mostly female teachers - further research could be undertaken with a more representative sample that includes more males.
- A more representative sample could also include schools from different quintiles to explore the effect of SES on the SC of teachers.
- The study should be replicated with teachers in other locations, such as other provinces in South Africa or rural schools (as opposed to peri-urban schools) to determine the external validity of the study.

6.4.2 Recommendations for the REPSSI SC Questionnaire

- It is recommended that factor analyses be performed using a larger sample to ascertain the construct validity and thus inform future scale revisions.
- Additionally, questions on external SC should be revised and included in a repetition of my study, as these questions were excluded from my study.
- Furthermore, three of the four scales of the REPSSI SC questionnaire used in my study yielded a Cronbach's alpha coefficient of .686, which is marginally below the generally accepted level of .7. Therefore, further studies could seek to improve the reliability of the REPSSI SC questionnaire in the setting of South African peri-urban primary school teachers in challenged contexts by using larger samples or more robust measures per construct.

6.4.3 Recommendations for the ENTRÉE TR Questionnaire

- The Teacher Emotion scale resulted in a Cronbach's alpha coefficient of .636, which is below the generally accepted level of .7, but above the recommended acceptable level of .6 for social sciences (Ghazali, 2008). This being said, further studies could seek to improve the reliability of the Teacher Emotion scale in the setting of South African peri-urban primary school teachers in challenged contexts by using either larger samples or more vigorous measures per construct.
- Future researchers could further investigate the *contextual scale* of the ENTRÉE TR questionnaire. Qualitative data allowed the participant's voice to conceptualise resilience as a dynamic process. Further qualitative research may contribute to a more

nuanced understanding of how teachers utilise an adaptive process in adverse conditions to become good quality teachers and sustain well-being despite chronic hardship.

- Future research could examine the ENTRÉE TR questionnaire's reliability in settings other than South African peri-urban primary school teachers in challenged situations.

6.4.4 Recommendations for the Isithebe Intervention

- The teachers were asked to reflect on which arts activities they enjoyed the most during post-intervention data collection. The teachers reported they enjoyed the beadwork, photo frame, and recipe book activity the most. On a process level, it was noted that teachers enjoyed hands-on activities. Creating and decorating different objects unleashed the teachers' creative abilities, which was reported in the qualitative data. The "Friendship Survival Kit" activity did not call for hands-on creativity. During this teacher gathering, it was noted on a process level that the teachers were not deeply engaged in this activity. It is therefore recommended that the revised manual should replace this activity. In the post-pilot revision of the manual, the "Growing Together" activity replaced the "Friendship Survival Kit" to use a hands-on experience to enable experiences of engagement that signify unity and dynamic growth when connected.
- An SC intervention like Isithebe involved little cost. Creating informal spaces for SC at schools (supplemented by art activities) is a low-cost option for teachers working in challenged spaces that hold benefits for both TR and SC.

6.4.5 Recommendations for Well-Being Agendas in Education in Challenged Contexts

- It is recommended that schools implement interventions or training opportunities to assist teachers in becoming aware of the benefits of SC to nurture it. Training opportunities could include training social-emotional competence skills in both pre- and in-service teacher education and PD.
- It is recommended that SC interventions in schools establish a routine of deliberate SC amongst teachers in their varied circles by encouraging relationship building outside of formal school meetings.
- A possible way to make "Isithebe" more sustainable is to empower teachers to implement SC interventions themselves without researcher intervention. Teachers can be trained to become the champions of their projects, possibly making similar SC initiatives more maintainable.
- In addition to Isithebe, which emphasises systemic factors in resilience processes, the intervention also drew from Indigenous Knowledge Systems by appreciating

relationships and SC as essential to achieving well-being. Regardless of whether or not they received an SC intervention, South African teachers working in a challenged environment had high levels of SC and valued the development of relationships. However, findings from my study show that when teachers participate in an SC intervention, their repertoire for providing implicit and explicit social support to learners, co-workers and the school community and receiving the support from the same role players is expanded. In this way, interventions that target communal capital are especially effective within challenged spaces.

- From a socio-ecological perspective, resilience research is asset-focused. It explains why groups of people whose spaces predispose outcomes of maladjustment and possible failure can achieve the opposite. Accordingly, I urge school management to seek opportunities to promote SC as a protective resource for teachers, supporting teachers to maintain their teaching quality and remain committed to the profession.

6.5 Conclusion

My study explored SC as a pathway to TR for primary school teachers in public peri-urban primary schools in challenged contexts in the EC, South Africa. It was found that the SC and TR of the teachers in the sample were high in the midst of the challenges they face daily.

Resilience research in South Africa highlights that an Afrocentric worldview shapes processes of positive adjustment (Ebersöhn et al., 2015; Phasha, 2010; Theron, 2012; Theron & Theron, 2014). Regardless of whether or not teachers participated in an SC intervention, South African teachers working in a challenged environment had high levels of SC and valued the development of relationships, the need for relatedness, and belonging. The introduction of an intentional SC intervention strengthened relationships between the teachers and deepened teachers' capacity to give support to and receive support from co-workers, learners and the broader community.

Despite the structural disparity, high TR was evident with respect to teacher professionalism, emotion, motivation, self-efficacy and teacher efficacy. Following the Isithebe SC intervention, both QUAN+QUAL data showed an increase in SC and TR scores of participating teachers. The findings of my study confirm that TR can be promoted by relational resources that support teachers to behave in ways that prioritise relationship-building and SC. QUAN+QUAL data revealed that SC supplemented by art activities and meeting playfully broadened teachers' social repertoire by highlighting social-emotional competence such as empathy, social adaptability, and trust, all of which contributed to their TR.

A sense of belonging and proclivity for SC is reflected in teacher statements such as: "No one can operate like an island… we need each other"; "If you want hands at school that group of yours is here… and they will give you hands"; and "So it keeps us helping each other

and I know that I have my Isithebe group of mine…" A sense of professional pride and on-going PD is shown by teacher statements such as: "To work very hard in our school and love our job more…"; "And be inspirational so we can inspire others as well"; and "When you see those learners progress to university and get jobs, I feel proud about that".

SC appears to be an available protective resource on which teachers can draw to buffer against chronic and severe challenges to their well-being and job performance in a space of deprivation and challenge. Isithebe functioned to deliberately strengthen a web of SC between teachers' loved ones, the teachers themselves and the broader school communities. This web of Social Connectedness enabled teacher resilience, although the existence of challenged continues.

Figure 6.3

Photographs 62-65: Teachers who took part in Isithebe intervention between September 2018 and September 2019

Photos by the researcher with permission from the participants

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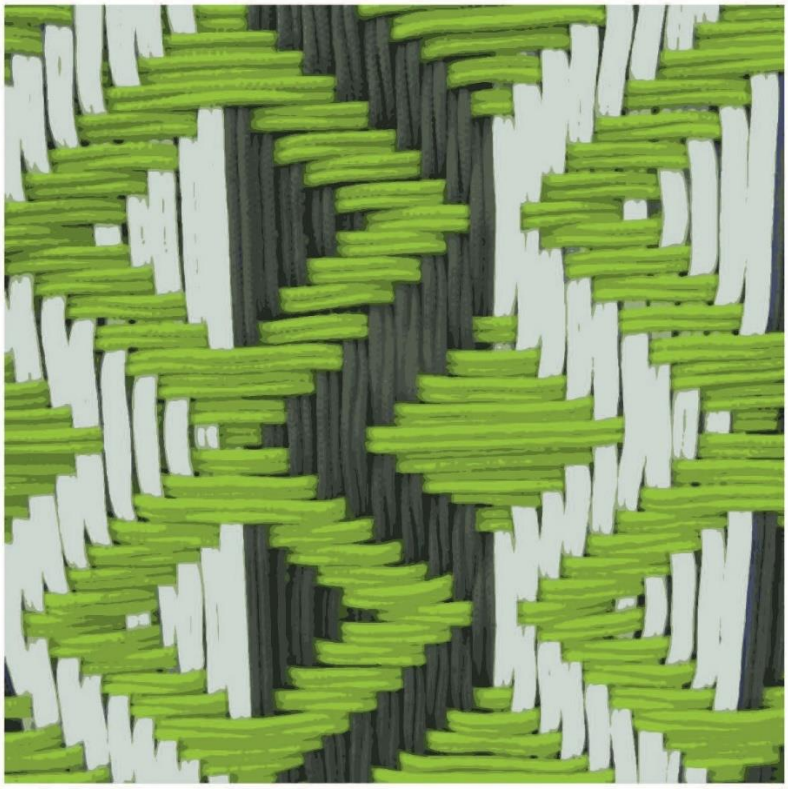
7 Appendices

7.1 Appendix A: ISITHEBE Social Connectedness Intervention Manual

ISITHEBE Social Connectedness Intervention MANUAL

Developed in collaboration with the:
IMBUMBA YABEFUNDISINTSAPHO-team

Social connectedness as pathway to teacher resilience in school communities in challenged education settings



ISITHEBE

Funded by The Synergos Institute

February 2020
Centre for the Study of Resilience
Faculty of Education
University of Pretoria

Liesel Ebersöhn, Jessica Versfeld, & Ronél Ferreira

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Isithebe

Nokele (2006) note the value of the *eating mat, or wooden tray* (isithebe) for both IsiXhosa and isiZulu South Africans. For example, amaXhosa sometimes put the dish or meat on a large woven mat in front of the people to help themselves. They do not use a tray to serve food, a dish of food or a beaker of amarhewu is just brought by hand and put in front of the people and they eat or drink from it.

Isithebe is therefore a symbol of bringing family together. Of connecting people. Of preventing isolation. Isithebe shows nurturing, trust, comfort, care and support, as well as deep interest in one another.

The Isithebe intervention is co-developed within the Imbumba Yabefundisintsapho-team[14]. The importance of social connectedness and having positive relationships with those around us is established. Yet, often social connectedness is not intentionally practiced as a supportive pathway. Therefore, the aim of this intervention is to explore how strengthening social connectedness between educators may help educators to experience job fulfillment, remain on in the profession and provide quality education (teacher resilience).

Over six months Isithebe deliberately provides spaces that bring educators together to share and connect with each other. We know that educators are extremely busy. Through Isithebe we want to make it easy for you to connect with other educators over enjoyable arts-activities. We know that such social connection (rather than isolation) is extremely important to be able to be a good teacher, enjoy being a teacher, and continue in the profession.

The purpose of this intervention is to explore *social connectedness as pathway to teacher resilience using the Isithebe-intervention*

[14] Participating school: Garett Primary School, Ntyatyambo Primary School, John Masiza Primary School, Walmer Primary School, Charles Duna Primary School and Seyisi Primary School.

Come sit here with me[15]

come sit here with me and tell
me about your day. of your
joy your sadness your crying your
plans your laughing.

then I'll tell you about that
curry I ate today, and
you tell me about the book you read, and
I tell you about the angel in my home, and you
tell me about the visit with family you're planning.

and as the sun sets I'll
light a candle for us,
with my feet up while you sit
with outstretched legs. And
while we brew that tea - with the bags
we bought last week - I'll
add milk, and you'll say people don't drink tea
with milk. And we'll go quiet
and be happy in the
shade. While the sun sets.

and you'll say we're going to make
a fire now, just because we can,
and I'll take out the last
chicken from December. And while I'm in the
kitchen I'll bring out more candles, to
add to the dim, flicker of the streetlamp reflecting
in the yard

we'll each empty all our telling
and start our laughter generators, and
fill our hearts.

and I'll sit there and feel
like a rich woman, and think this is
exactly how each day must end
for me. More real than
my work, or my budget, or
transport problems, or clothes, or my
sore feet that don't want to stop hurting.

because it's natural.
and easy.
and together.
and good.
and real.

[15] Adapted by Liesel Ebersöhn from © Hekelwoorde van my hart.

Teacher resilience: being a quality educator during challenged times

Educators in South Africa face many challenges. It is natural to expect that educators may experience burnout, want to drop out of the profession and could struggle to provide quality education. Educators may be too tired to work, feel too hopeless to think that things will change and that they can receive more resources and support, and feel such fatigue that they do not know how they can teach good lessons to learners.

These are the **expected (negative) outcomes (results)** that one can **predict for educators** because of the **extreme challenges** we face because of inequality:

- educator burnout and distress,
- educator attrition, and
- low quality education.

Resilience is the process of adapting well in the face of adversity. **Teacher resilience**, however, means that there can be **'better than expected' outcomes for educators – despite continued hardship**. Teacher resilience mean that there is support for educators so that the following **unpredicted, positive outcomes** are possible for educators:

- educator job satisfaction and wellbeing,
- educator retention, and
- high quality education.

The importance of a social connectedness for teacher resilience

One pathway in which to support teacher resilience is social connectedness (a web of relationships and connections with other people). **Social connectedness reflect the indigenous knowledge inherent to Ubuntu**.

What makes us happiest and content in life? Some people may point to fame and fortune. Yet, when people reach the end of their lives, they report that good relationships and connections with friends and family are the real prize that makes life worth living. Most people rate moments of connection and shared enjoyment with others as their most important life experiences.

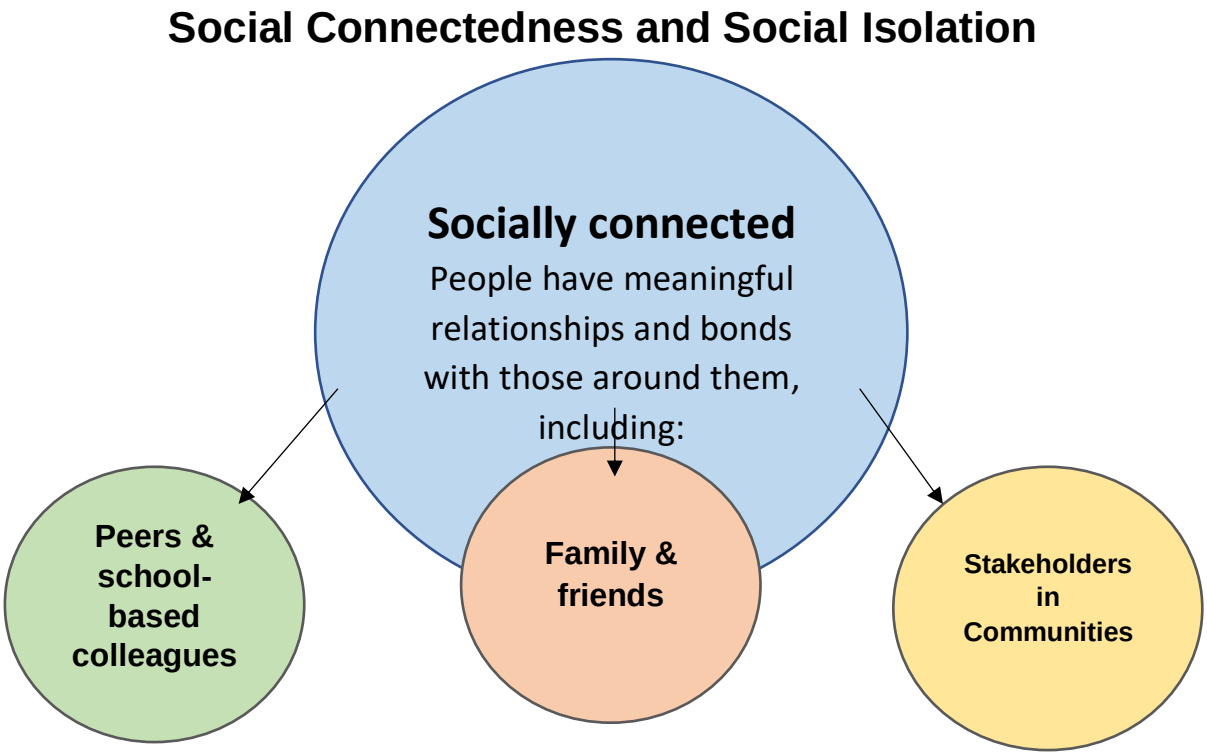
One can expect that when the lives are people are characterised with social connectedness they can expect to give and receive **social support** to each other. Social support from relationships to which people belong enable resilience.

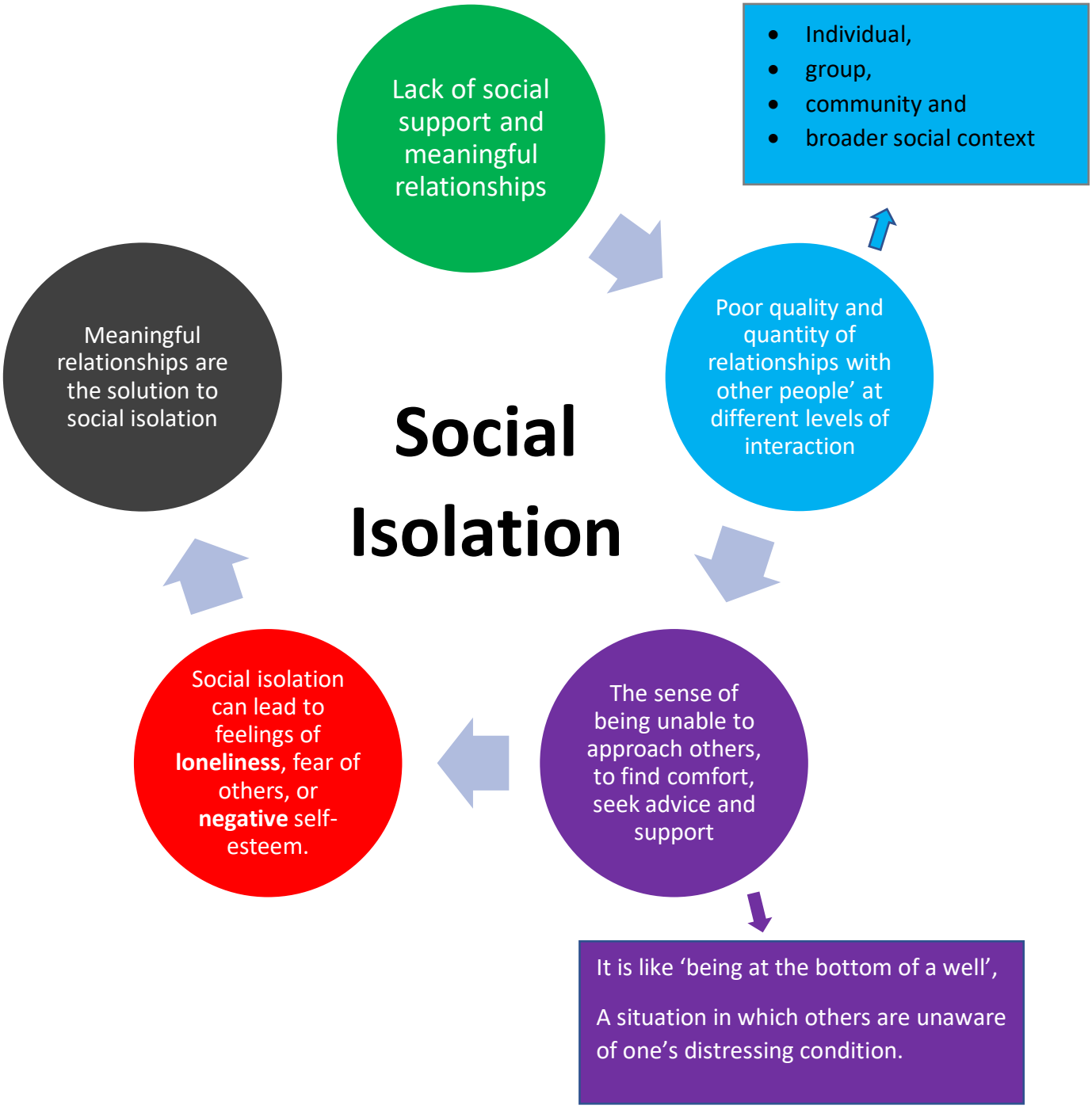
Social connectedness refers to our sense of belonging. Having a sense of community all contribute to our happiness. This sense of community include meaningful relationships that make up our identity (such as work, family, leisure, religion and community groups): family and personal friends, wider groups and communities we belong to, work colleagues, neighbours and the various groups. In the work-life of an educator, significant relationships include those with peers, learners and their families, school leadership, district officials, as well as community stakeholders.

The opposite of social connection is social isolation and loneliness. This is when we feel alone and disconnected from other people. Being lonely is when we feel that we do not have genuine relationships with others where we feel understood and accepted. Some people who are surrounded by others throughout the day, or even in a lifelong marriage, can still experience a deep sense of loneliness. Feelings of isolation and loneliness can have serious negative effects on one's mental and physical health (Loneliness can be a contributing factor to heart disease, diabetes, arthritis, Alzheimer's and other critical diseases).

Why is it important to build social connectedness?

- Relationships are an important part of life
- Relationships help us stay healthy and happy
- Good relationships provide people with a sense of belonging and meaning in life
- Relationships provide us with networks that create access to resources
- People who have good relationships with those around them tend to contribute more towards their communities
- When we feel that we are appreciated and cared for in the spaces we live and work it reduces the chance for burn-out (Feelings of physical and emotional exhaustion due to stress from working with people under demanding conditions)
- To counter burnout, having a sense of purpose is highly important and this is often achieved through relationships with others
- Relationships help us cope with stressful experiences by reminding us of what is positive in our lives despite difficulties





ISITHEBE-INTERVENTION TRAINING

Educators from six schools in the Eastern Cape participate in the development of Isithebe. The co-generators of Isithebe (Imbumba Yabefundisintsapho) are on a What's app group that is used as a communication platform throughout the intervention to send photos and reminders. At **baseline** all the educators completed measures on teacher resilience and social connectedness in September 2018.[16]These same measures will be completed **post-intervention** in September 2019.

Isithebe intervention training consists of a half-day (6 hour) Isithebe-training session (March 2019) with educators from all six schools (refer to Appendix A for the training schedule). Following the Isithebe training, educators then organise three monthly Isithebe gatherings with peers in their school (Apr, June, August), and also have joint Isithebe gatherings with educators from other schools and researchers during alternate months (May, July, September) (**refer to Appendix A**).

The training session covers the foci that the Isithebe intervention addresses. To frame each of intervention foci the training includes arts-based activities, brief power point presentations (**refer to Appendix D**), as well as educator-lead PRA-group presentations to demonstrate existing knowledge in each domain.

The Isithebe training foci include:

- the need for teacher resilience;
- social connectedness and social isolation;
- introduction to the Isithebe Kit; and
- modelling an Isithebe gathering.

ISITHEBE KIT

During the Isithebe intervention training every school receives an '**Isithebe Kit**' for Isithebe meetings. The Isithebe Kits are premised on the therapeutic value of arts-based activities to mindfully bring people together to relax, connect and experience well-being.

Objectives of the Isithebe arts-activities gatherings are to:

- Intentionally establish and/or enhance social connectedness between educators within and across schools, as well as in other areas of teacher's lives
- Establish a routine of deliberate social connection amongst educators in their varied circles;
- Include social activities to extend to building relationships with others outside of work colleagues; and
- Encourage building relationships outside of school-group meetings.

The **aim of the joint bi-monthly Isithebe gatherings** are to intentionally create a space for joint reflections between educators from different schools and researchers on previous monthly Isithebe gatherings per school. Following an introductory icebreaker educators participate in school-based Participatory and Reflection Action

[16] Demographic questionnaire, Social Connectedness and Teacher Resilience scale, ENTRÉE scale, PRA discussions and posters

sessions to address the three questions they answered after their previous monthly Isithebe gathering.

Each Isithebe Kit contains:

ISITHEBE ORGANISATIONAL ISITHEBE ELEMENTS:

- The **Isithebe Manual** (each educator will also receive their own manual – this is an additional manual for the school);
- **Laminated sheet with dates** for monthly Isithebe gatherings (second last Monday of the month. April, June and August educators meet per school. May, July and September all six schools and researchers have a joint Isithebe gathering at the DBE District Offices) – **refer to Appendix A;**
- 3 x **Checkers** R200.00 **vouchers** (total value of R600.00 per school). Thus R200.00 per Isithebe gathering to buy refreshments and snacks for the monthly Isithebe gatherings;
- Instructions attached to each activity package **(please refer to Appendix B)**
- A **laminated sheet with three questions** to be discussed during each Isithebe gathering:
  How do these gatherings help you to be a teacher?
  How do these gatherings help you with school projects?
  How do these gatherings help you to be involved with other role-players in the school-community?
- A **school-journal** to write down each teacher's answers to the three respective questions (this is used during very Isithebe gathering)

ISITHEBE ACTIVITY ELEMENTS

- **Four arts-activity packages** for every second upcoming month meeting where educators meet as teachers within their particular school (March-model, April, June, August)

- Instructions that will be attached to the activity packages
  (please refer to Appendix B)
- **Reusable craft materials** for the duration of the Isithebe gatherings (to be used and re-used for activities throughout the intervention)

Stickers

Glitter

Feathers and stones

Kokies and pencils

Paint and brushes

Craft variety pack

All together in “Chest of Care”

Standard Isithebe intervention procedures

Procedure for bi-monthly Isithebe gatherings per school[17]:

Before the session:

- decide on a time and place to gather bi- monthly;
- use the Checkers voucher to buy refreshments and snacks for the school-based Isithebe gathering.

During the session:

- take the particular art-activity[18] for that month from the isithebe Kit,
- read the instructions, and
- do the activity;
- take turns to ask and answer the three questions on the laminated document[19];
- write the answers in your school journal; and
- take a photograph of your school's Isithebe gathering to share with educators from other schools on the Imbumba Yabefundisintsahpo whatsapp group.

After the session:

- educators take photographs of their school's Isithebe gathering and post on whatsapp; and
- educators bring the completed arts-activity products and school journals with answers from each educator to the three questions to the next month's joint Isithebe gathering.

Procedure for joint bi-monthly Isithebe gatherings of teachers from all schools with researchers:

Before the session:

- educators and researchers decide on a time and place to gather bi-monthly (probably DBE District offices);
- researchers buy refreshments and snacks for the joint Isithebe gathering; and
- educators bring their completed arts-activity products, as well as school journal with answers from each educator to the three questions to the next month's joint Isithebe gathering.

During the session:

- researchers provide materials and give instructions for an arts-activity[20] as ice breaker to the joint session,
- following the completion of the ice breaker teachers from each school answer and present the three questions in Participatory Reflection and Action sessions (educators can refer back to and expand on what they wrote in their school journals).

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[17] Modelled with educators in a session during the Isithebe training.
[18] Art-activities include: clay modelling, relationship box, sharing of recipes, making bracelets and decorating photo frames
[19] Three questions to ask and answer during every Isithebe gathering:
How do these gatherings help you to be a teacher?
How do these gatherings help you with school projects?
How do these gatherings help you to be involved with other role-players in the school-community?
[20] Art-activities include: clay modelling, relationship box, sharing of recipes, making bracelets and decorating photo frames

Relationship Voucher Box
FIRST Isithebe gathering of educators *per school* (April)

- Educators meet per school at an agreed time in an agreed venue. Suggested date: 15 April 2019.[21]
- Nominated educator(-s) from school-group use supplied vouchers to buy drinks and snacks for the Isithebe gathering.
- This session is planned for 1 hour 30 min to 2 hours.
- **APRIL** packaged arts-activities included in the large "Isithebe Kit" - distributed at the intervention training.

Instructions: Relationship Voucher Box activity (approximately 45 min)

- As part of the Isithebe Kit per school each educator receives a small box and craft materials to decorate the outside of the box (letters, beads, glitter, feathers, etc) and glue.

- Educators use craft materials and glue to decorate the box in any way they chose.
- Along with the box to be decorated, the April bag also contains an envelope with ideas on how to build and maintain relationships: e.g: message a friend you haven't spoken to in a long time, do something nice and unexpected for a family member, go for coffee with a friend, etc.
- There will also be blank pieces of paper in the envelope for educators to write down any of their own ideas on strengthening relationships.
- After educators finish decorating their boxes, educators each select six vouchers to put in their relationship box.
- Over the next month educators are encouraged to select three of the vouchers and do one relationship-building idea in a week.

Discussion after the Relationship Voucher Box activity (approx. 45 min)

- Take turns to ask and answer the three questions on the laminated document[22];
- Write the answers in your school journal;
- Take a photograph of your school's Isithebe gathering and post on whatsapp; and

[21] Laminated sheet with suggested dates for Isithebe gatherings are included in the Isithebe Kit.
[22] Three questions to ask and answer during every Isithebe gathering:
How do these gatherings help you to be a teacher?
How do these gatherings help you with school projects?
How do these gatherings help you to be involved with other role-players in the school-community?

- Bring the school-journal, as well as Relationship Voucher Boxes to the joint meeting next month.

Growing together

FIRST JOINT Isithebe gathering: teachers of six schools and researchers (May)

- Educators and researchers meet jointly at an agreed upon venue – probably DBE District Offices.
- This session is planned for 1 hour 30 min to 2 hours.
- **Educators each bring their Relationship Voucher Box (created during the previous Isithebe gathering) to present and discuss at joint meeting.**
- **Each school brings Isithebe kits to use art materials for activity**
- Researchers bring May materials for icebreaker (pot plants, soil and succulents to plant), three posters per school, markers, and also organise drinks and snacks.

Growing together (approximately 45 min)

- Each educator is given an empty pot and craft materials (letters, beads, glitter, feathers, glue) to decorate the pot. Teachers are asked to use symbols of unity, togetherness, friendship in their designs.

- After the educators have decorated the pots, they are each given a succulent plant and potting-soil to plant in their decorated pot.

Succulent plant symbolism

- Succulent plants are specialists at absorbing, retaining and efficiently using water. This particular characteristic has allowed them to survive in even the most desolate and water-deprived corners of the earth.
- These resilient plants are reminders that even the most difficult situations can be endured when planted in space of connectedness with others.

Group discussion

- Teachers to discuss in groups the symbols of connectedness they used to decorate their pots and the symbolism of perseverance through unity in their own lives

- Acts as a reaffirming experience for teachers to acknowledge the organic and dynamic nature of social connectedness to support resilience
- Optional: educators can keep the pot plant, or give it to one of their close friends or colleagues.

PRA discussions per group after the Growing together icebreaker (approx. 45 min)

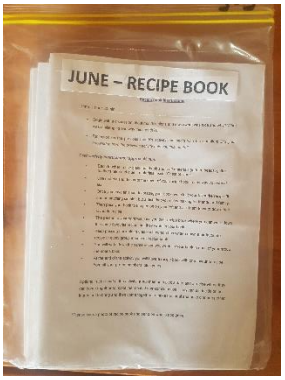
- Teachers divide into school-specific groups.
- Each group receives three blank posters and markers to answer each of the following questions in turn:
    - How do these gatherings help you to be a teacher?
    - How do these gatherings help you with school projects?
    - How do these gatherings help you to be involved with other role-players in the school-community?
- Each school presents their answer to educators from all schools.

Educator Circle Recipe Book
SECOND Isithebe gathering of educators *per school* (June)

- Educators meet per school at an agreed time in an agreed venue. Suggested date: 10 June 2019.[23]
- Nominated educator(-s) from school-group use supplied vouchers to buy drinks and snacks for the Isithebe gathering.
- This session is planned for 1 hour 30 min to 2 hours.
- **JUNE** packaged arts-activities included in the large “Isithebe Kit” - distributed at the intervention training
- This session is planned for 1 hour 30 min to 2 hours

Instructions: Educator Circle Recipe Book activity (approximately 45 min)

- As part of the Isithebe Kit per school each educator receives a blank notebook and craft materials to decorate the outside of the book (letters, beads, glitter, feathers, etc).



- Follow the page of instructions attached to June package:
    - Use the letters provided to title your book “RECIPE BOOK”

[23] Laminated sheet with suggested dates for Isithebe gatherings are included in the Isithebe Kit.

  - Use other materials to decorate the cover of your book in any way you would like
  - Once you have finished decorating your book, write in it your favourite recipe (it can be anything simple), but a dish that you enjoy making for friends and family.
  - Then pass your book to the person on your left and ask them to write down their favourite recipe
  - The person to your right will pass you their recipe book where you can write down the same favourite recipe that they wrote in your book
  - Keep passing book along until each person has written down their favourite recipe in every group member's recipe book
  - You will write down the same recipe you wrote in your book in each of your group member's book
  - At the end of the activity you will have a recipe book with one favourite recipe from all your group members, plus yours.
- Optional: at the end of the activity group members pick a date and a recipe where they can come together to make the meal at someone's house. They can all decide on an ingredient to bring and then come together to make the meal and have dinner together

Discussion after the Educator Circle Recipe Book activity (approx. 45 min)

- Take turns to ask and answer the three questions on the laminated document[24];
- Write the answers in the school journal;
- Take a photograph of the school's Isithebe gathering and post on whatsapp; and
- Bring the school-journal, as well as Educator Circle Recipe Book to the joint meeting next month;
- Throughout the upcoming month each teacher can share which recipes they enjoyed making on whatsapp; and
- Each educator whatsapp a researcher (or to the whatsapp group) photographs that symbolise their important relationships – researchers need to have enough time to print these photographs and hand back to educators during the July gathering so that educators can use the photographs in the Framing Important Educator Relationships (August) arts-activity.

Educator Journey Bracelets
SECOND JOINT Isithebe gathering: teachers of six schools and researchers (July)

- Educators and researchers meet jointly at an agreed upon venue – probably DBE District Offices. Suggested date: 29 July 2019.[25]
- This session is planned for 1 hour 30 min to 2 hours.

[24] Three questions to ask and answer during every Isithebe gathering:
How do these gatherings help you to be a teacher?
How do these gatherings help you with school projects?
How do these gatherings help you to be involved with other role-players in the school-community?
[25] Laminated sheet with suggested dates for Isithebe gatherings is included in the Isithebe Kit.

- **Educators each bring their Educator Circle Recipe Book (created during the previous Isithebe gathering) to present and discuss at joint meeting.**
- Researchers bring July materials for icebreaker, three posters per school, markers, and also organise drinks and snacks.
- Researchers bring and handout to educators the printed photographs symbolising important relationships.

Instructions: Educator Journey Bracelets icebreaker (approximately 45 min)

- Each educator receives a bag that contains an assortment of beads, string, pair of scissors, and a small piece of cardboard.

- The facilitator gives the following instructions:
  - Use the materials to make a bracelet that represents your journey of becoming a teacher (include highs and lows – success and disappointments);
  - Please write a brief description of your teacher journey on the piece of cardboard provided.
- Optional: educators can swop bracelets with a group member who they feel they had a similar journey to, or a journey that inspired them.

PRA discussions per group after the Friendship Survival Kit icebreaker (approx. 45 min)

- Teachers divide into school-specific groups.
- Each group receives three blank posters and markers to answer each of the following questions in turn:
  - How do these gatherings help you to be a teacher?
  - How do these gatherings help you with school projects?
  - How do these gatherings help you to be involved with other role-players in the school-community?
- Each school presents their answer to educators from all schools.
- Each educator receives the printed photographs symbolising important relationships for the Framing Important Educator Relationships (August) arts-activity.

Framing Important Educator Relationships
THIRD Isithebe gathering of educators *per school* (August)

- Educators meet per school at an agreed time in an agreed venue. Suggested date:19 August 2019[26]
- Nominated educator(-s) from school-group use supplied vouchers to buy drinks and snacks for the Isithebe gathering.
- This session is planned for 1 hour 30 min to 2 hours.
- **AUGUST** packaged arts-activities included in the large "Isithebe Kit" - distributed at the intervention training
- This session is planned for 1 hour 30 min to 2 hours

Instructions: Framing Important Educator Relationships activity (approximately 45 min)

- As part of the Isithebe Kit each educator receives a blank photo frame and craft materials to decorate the outside of the box (letters, beads, glitter, feathers, etc) and glue – materials inside "Isithebe Kit".

Follow the page of instructions attached to June package

- Each teacher to use blank photo frame and craft materials (letters, beads, glitter, feathers, etc) and glue – materials inside "Isithebe Kit".
- Use materials and glue to decorate your photo frame in any way you would like
- After frame is decorated, place the photo of your important relationship in the frame (printed photos to be handed out at July meeting)

After activity, teachers to share in group:

- How this relationship developed?
- What are the highs and lows of this relationship?
- What are the challenges they have overcome?
- Why does this person help them be a good teacher?

*Teachers reminded to take a photo of photo frame and send on what's app group
*Optional – place the photo frame on your desk at work or somewhere at home

Discussion after the Framing Important Educator Relationships activity (approx. 45 min)

[26] Laminated sheet with suggested dates for Isithebe gatherings are included in the Isithebe Kit.

- Take turns to ask and answer the three questions on the laminated document[27];
- Write the answers in the school journal;
- Take a photograph of the school's Isithebe gathering and post on whatsapp; and
- Bring the school-journal, as well as ALL the Isithebe products to the joint meeting next month.

Full circle social connectedness
THIRD JOINT Isithebe gathering: teachers of six schools and researchers (September)

- Educators and researchers meet jointly at an agreed upon venue – probably DBE District Offices. Suggested date: 20 September 2019[28]
- This session is planned for 1 hour 30 min to 2 hours.
- **Educators each bring ALL the products from previous Isithebe gatherings to present and discuss at joint meeting.**
- Researchers bring September materials for icebreaker, three posters per school, markers, teacher resilience and social connectedness measures, and organise drinks and snacks.

Instructions: Full circle social connectedness icebreaker (approximately 45 min)

- Teachers divide into school-specific groups.
- Each educator picks one Isithebe product as a symbol to explain to their school-group how social connectedness supports them to be happy as teachers, remain in the profession, and provide quality education.

PRA discussions per group after the Full Circle Social Connectedness icebreaker (approx. 45 min)

- Teachers divide into school-specific groups.
- Each group receives three blank posters and markers to answer each of the following questions in turn:
    - How do these gatherings help you to be a teacher?
    - How do these gatherings help you with school projects?
    - How do these gatherings help you to be involved with other role-players in the school-community?
- Each school presents their answer to educators from all schools.
- Post-test of social connectedness and teacher resilience measures.

[27] Three questions to ask and answer during every Isithebe gathering:
How do these gatherings help you to be a teacher?
How do these gatherings help you with school projects?
How do these gatherings help you to be involved with other role-players in the school-community?
[28] Laminated sheet with suggested dates for Isithebe gatherings are included in the Isithebe Kit.

APPENDIX A: INTERVENTION OUTLINE APRIL – AUGUST 2019

	Isithebe Gatherings: timeframe April – August 2019	

15 April 2019	Meet per school	• April-labelled package with instructions in Isithebe Kit – **Relationship Voucher Box**
		• Round robin discussion on questions and write answers in journal:
		  ○ How do these gatherings help you to be a teacher?
		  ○ How do these gatherings help you with school projects?
		  ○ How do these gatherings help you to be involved with other role-players in the school-community?

27 May 2019	Joint meeting	• Start with **Friendship Survival Kit ice-breaker**
		• PRA groups/school on questions and written answers in journal:
		  ○ How do these gatherings help you to be a teacher?
		  ○ How do these gatherings help you with school projects?
		  ○ How do these gatherings help you to be involved with other role-players in the school-community?

10 June 2019	Meet per school	• June-labelled package with instructions in Isithebe Kit – **Educator Circle Recipe book**
		• Round robin discussion on questions and write answers in journal:
		  ○ How do these gatherings help you to be a teacher?
		  ○ How do these gatherings help you with school projects?
		  ○ How do these gatherings help you to be involved with other role-players in the school-community?

29 July 2019	Joint meeting	• Start with **Educator Journey Bracelets craft activity and ice-breaker**
		• PRA groups/school on questions and written answers in journal:
		  ○ How do these gatherings help you to be a teacher?
		  ○ How do these gatherings help you with school projects?
		  ○ How do these gatherings help you to be involved with other role-players in the school-community?

19 August 2019	Meet per school	• August-labelled package with instructions in Isithebe Kit – **Framing Important Educator Relationships**
		• Educators reminded to bring photos given to them at July meeting
		• Round robin discussion on questions and write answers in journal:
		  ○ How do these gatherings help you to be a teacher?
		  ○ How do these gatherings help you with school projects?
		  ○ How do these gatherings help you to be involved with other role-players in the school-community?

September	Joint meeting	• Bring all Isithebe products for sharing
		• PRA groups/school on questions and written answers in journal:
		  ○ How do these gatherings help you to be a teacher?
		  ○ How do these gatherings help you with school projects?
		  ○ How do these gatherings help you to be involved with other role-players in the school-community?
		• Post-test: teacher resilience & social connectedness

Appendix B – Arts Activity Instructions In Isithebe Kit

Relationship Voucher Box Instructions

Time: 1 hour 30 min

- Begin with a discussion about month's highs and lows (what was nice and why? What was challenged and why this month?).
- Reflection on the previous month's activity and begin with the question: *Did your knowledge from the previous activity help you this month?*

Craft activity instructions

- Each teacher to use small box and craft materials (letters, beads, glitter, feathers, etc) and glue – materials inside "Isithebe Kit".
- Use materials and glue to decorate your box in any way you would like
- Open envelope with relationship vouchers inside
- There are blank pieces of cardboard for you to write your own ideas on how to build relationships
- After you have finished decorating your boxes, please select 6 vouchers to put in their relationship box
- Take part in 4 week challenge – every week select a voucher from the box to do

*Teachers reminded to take a photo of relationship box and send on what's app group

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Recipe Book Instructions

Time: 1 hour 30 min

- Begin with a discussion about month's highs and lows (what was nice and why? What was challenged and why this month?).
- Reflection on the previous month's activity and begin with the question: *Did your knowledge from the previous activity help you this month?*

Craft activity instructions: (approx. 45 min)

- Each teacher to use blank notebook and craft materials (letters, beads, glitter, feathers, etc) and glue – materials inside "Isithebe Kit".
- Use materials to decorate the cover of your recipe book in any way you would like
- Once you have finished decorating your book, write in it your favourite recipe (it can be anything simple), but a dish that you enjoy making for friends and family.
- Then pass your book to the person on your left and ask them to write down their favourite recipe
- The person to your right will pass you their recipe book where you can write down the same favourite recipe that they wrote in your book
- Keep passing book along until each person has written down their favourite recipe in every group member's recipe book
- You will write down the same recipe you wrote in your book in each of your group member's book
- At the end of the activity you will have a recipe book with one favourite recipe from all your group members, plus yours.

Optional: at the end of the activity group members pick a date and a recipe where they can come together to make the meal at someone's house. They can all decide on an ingredient to bring and then come together to make the meal and have dinner together

*Please take a photo of recipe book and send on what's app group

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Photo Frame Instructions

Time: 1 hour 30 min

- Begin with a discussion about month's highs and lows (what was nice and why? What was challenged and why this month?).
- Reflection on the previous month's activity and begin with the question: *Did your knowledge from the previous activity help you this month?*

Craft activity instructions

- Each teacher to use blank photoframe and craft materials (letters, beads, glitter, feathers, etc) and glue – materials inside "Isithebe Kit".
- Use materials and glue to decorate your photo frame in any way you would like
- After frame is decorated, teachers can place the photo of their important relationship in the frame (printed photos to be given to teachers at July meeting)

- After activity, teachers to share in group:

How this relationship developed?
What are the highs and lows of this relationship?
What are the challenges they have overcome?
Why does this person help them be a good teacher?

*Teachers reminded to take a photo of photo frame and send on what's app group

---

APPENDIX C: INTERVENTION TRAINING 15 MARCH 2019

Intervention training session

- Educators sit in groups with colleagues from their school.
- Provide each group with stationary necessary per activity (e.g. a piece of cardboard and coloured pens for the 'Picture the value of a relationships' session.
- Following every group-based arts-activity additional knowledge is presented during a brief power point information session **(refer to appendix D).**
- **The following materials are required:**
  - Card board and posters
  - Kokies and pencils for drawing in first session
  - PPT
  - Isithebe kits per school
  - Attendance register
  - Name labels
  - Isithebe Intervention manuals per attendee
  - Thank you gifts
  - Participation certificates

Isithebe intervention training: 15 March 2019			
8:00-8:30	Registration, arrival coffee & tea		
8:30-9:00	Welcoming Introductions Overview of purpose (Isithebe manual: pp2 & 3)	Ms Joy Sishi Liesel Ebersöhn & Ronél Ferreira	5 min 15 min 10 min
9:00-10:00	**SESSION 1: Your best self as a teacher** Body-sculpting to frame teacher resilience experiences: (a) ***use your BODY to create a statue of your best self as a teacher – show the legacy you want to leave when you pass***; (b) discuss in your group why this body-sculpture represents your best self as a teacher; and (c) each group selects and presents two body-sculpture representations with the larger group.	Jessica Versfeld Liesel Ebersöhn Ronél Ferreira Zahné Bosch	 10 min 20 min 30 min
10:00-10:15	PPT-information session & Isithebe manual, p4.		15 min
10:15-10:45	Tea and coffee, comfort break		
10:45-11:45	**SESSION 2: Picture the value of a relationship** Drawing to frame social connectedness: (a) educators draw a picture / image to show what they appreciate about the person to their left; (b) discuss in your group how your drawing shows what you appreciate about the person to your left; and (c) each group selects and presents two drawings with the larger group.	Jessica Versfeld Liesel Ebersöhn Ronél Ferreira Zahné Bosch	 10 min 20 min 30 min
11:45-12:00	PPT-information session & Isithebe manual, p4-6.		15 min
12:00-13:00	**SESSION 3: Introduction to Isithebe gatherings** (a) Distribute the Isithebe Kits per school; (b) Explain the Isithebe Kit & timeframe (pp7-10); (c) Model the use of the Isithebe Kit (Appendix E): • use the March-labelled package in the Isithebe Kit (clay modelling); • demonstrate the procedure with three questions; (d) revisit the before, during and after procedure.	Jessica Versfeld Liesel Ebersöhn Ronél Ferreira Zahné Bosch	 10 min 10 min 30 min 10 min
13:00-13:15	Closing and way forward	Liesel Ebersöhn Ronél Ferreira	15 min
13:15	Lunch	---	---

Appendix D: Powerpoint Presentation for Intervention Training

SOCIAL CONNECTEDNESS

- What makes us happiest in life? *Discussion*
- Social connection refers to our sense of belonging
- Includes not only family and friends, but also the wider groups and communities we belong to
- The relationships and various groups we belong to make up our identity
- We draw strength from relationships and connections in times of difficulties

WHY RELATIONSHIPS ARE IMPORTANT

- Relationships help us stay healthy and happy
- Provide people with a sense meaning in life
- Relationships provide us with networks that create access to resources
- When we feel appreciated and cared for - reduces burn-out rates

LONELINESS

- The opposite of social connection is social isolation and loneliness
- Lack of genuine relationships
- Feel misunderstood and excluded
- Subjective - can be surrounded by others and still feel lonely
- Loneliness can be a contributing factor to heart disease, diabetes, arthritis, Alzheimer's and other critical diseases

FOSTERING SOCIAL CONNECTEDNESS

- Isithebe intervention aims to bring you together as teachers to spend time with each other bonding over arts, crafts and discussions
- Isithebe intervention aims to facilitate closeness with each other, as well as with other people in your life
- Teachers are busy - therefore create intentional space to connect

RELATIONSHIPS MATTER IN ALL SPACES

- People who have good relationships tend to contribute more towards their communities
- Social connectedness is associated with the economic performance of a community
- Relationships create networks and access to resources
- Enabling environments create "safe spaces" to foster good relationships

RELATIONSHIPS MATTER IN ALL SPACES

- Schools and teachers are associated with positive ways in building relationships
- For children, relationships with caring teachers is an important pathway to social connectedness
- Meaningful interactions are a way out of isolation
- Relationships give teachers and the children they work with the courage to overcome painful situations

Appendix E: Training Arts Activity (Clay Modelling)

- Educators meet jointly during the training.
- Group members use MARCH labelled packet which includes:

Craft materials and clay

Instructions: Clay Modelling activity (approximately 45 min)

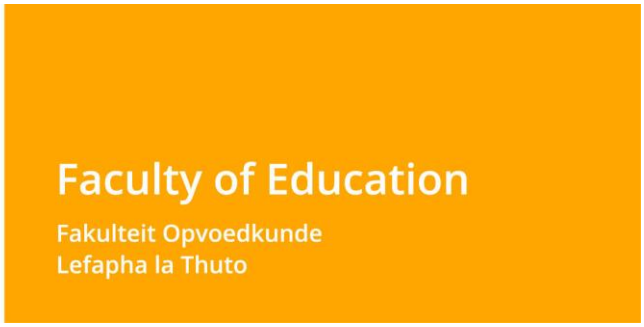
- The instruction is given as follows:
- Use the clay and materials to make a visual display of **what relationships mean to you as a teacher**
- Please write the description of what relationships mean to you as a teacher on the piece of cardboard
- Please take a picture of your clay model and cardboard description and post it on the Imbumba Yabefundisintsapho what's app group
- Put materials from craft variety pack back into 'Isithebe Kit' to be used for subsequent craft activities

Discussion after the Clay Modelling activity (approx. 45 min)

- After completion of clay models, groups display their visual representation of what relationships mean to them as a teacher and answer the following questions:
- Take turns to ask and answer the three questions on the laminated document[29];
- Write the answers in your school journal.

[29] Three questions to ask and answer during every Isithebe gathering:
How do these gatherings help you to be a teacher?
How do these gatherings help you with school projects?
How do these gatherings help you to be involved with other role-players in the school-community?

7.2 Appendix B: Informed consent letters



REQUEST FOR PARTICIPATION AND INFORMED CONSENT

TEACHERS

Dear Sir/Madam

I am currently busy with a PhD study in Educational Psychology at the University of Pretoria on the following topic: “Social connectedness as a pathway to teacher resilience in school communities in challenged settings.” My study forms part of the STAR project, in which you have been participating in recent years. This study wants to explore the ways in which social connectedness can impact on teacher well-being and the well-being of families in their communities.

You are herewith requested to participate in my study. Your participation is voluntary and you may withdraw from the study at any time if you wish to do so. All information you provide will be treated as confidential and your name will not be made public to anyone or when presenting findings. We will use pseudonyms to protect your identity. You will also not be asked to provide any information that could result in your identity being made public. You will have full access to the collected data during your involvement, as well as to the final results of the project. The collected data will be stored in a safe place at the University of Pretoria for 15 years. As this is a funded project, data will also be available in an open repository for public and scientific use where needed.

For the purposes of my study you will be requested to participate in participatory workshop sessions, taking the form of group discussions and some writing/drawing activities, which will be recorded in the form of posters, photographs and audio-recordings. For these workshop sessions you will be asked to tell us about asked to tell us about your experiences of a social connectedness intervention, and how these experiences impacted on teacher well-being and the well-being of families in your communities.

The benefit of this study is that the findings can inform others about the ways in which social connectedness can build teacher resilience in challenged settings. For you, a potential benefit entails that you may gain additional knowledge and skills about social connectedness during discussions, which you can apply in future. We do not foresee any risks, will respect your dignity at all times and not harm you in any way.

If you are willing to participate, please sign this letter to indicate your consent. This will mean that you agree to participate willingly and that you understand that you may withdraw from the study at any time. Under no circumstances will your identity be made known to others. If however, you would like your face to be shown when photographs are published, kindly tick the relevant block below.

Warm wishes

Mrs Jessica Versfeld
0842077743
e-mail: Jessica.versfeld@up.ac.za

Prof Liesel Ebersöhn (Supervisor)
email: liesel.ebersohn@up.ac.za

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Education
Fakulteit Opvoedkunde
Lefapha la Thuto

INFORMED CONSENT

TEACHERS

Title of research project: Social connectedness as a pathway to teacher resilience

I, _____ the undersigned, in my capacity as teacher at _____ (name of school) hereby agree to participate in the above-mentioned research. I understand that my contribution will be treated as confidential and anonymous, and that I may withdraw from the study at any time, if I wish to do so.

My face may be shown on photographs	YES	NO

Signed at _____ on_____2018.

_____ _____

Participant Researcher

_____

Witness

7.3 Appendix C: Entrée Scale

DATE:	
NAME AND SURNAME:	
SCHOOL:	
AGE:	**GENDER:**

Please rate how relevant each statement below is in terms of your career as a teacher													
		Source	**Scale**	**Item**	**Please choose your answer by circling the appropriate box ranging from: 1 = *Do not agree at all* to 7 = *Strongly agree***						
	The following statements express different views about teaching. Read each sentence and choose the option that better reflects your opinion, by checking the table below										
core	1	LE	Contextual	I did not want to become a teacher.	1	2	3	4	5	6	7
core	2	LE	Contextual	I may get to love teaching in future.	1	2	3	4	5	6	7
core	3	LE	Contextual	Teachers have played a positive role in my life.	1	2	3	4	5	6	7
core	4	LE	Contextual	I want to be a teacher who instils hope in learners even in the face of many obstacles	1	2	3	4	5	6	7
core	5	LE	Contextual	As a learner, I attended a school with many challenges and few resources	1	2	3	4	5	6	7
core	6	LE	Contextual	I know how to teach in a school where there are many challenges and few resources	1	2	3	4	5	6	7
core	7	LE	Contextual	As a teacher I want to take initiative to solve problems in schools	1	2	3	4	5	6	7
core	8	LE	Contextual	As a teacher I will wait for government or officials to solve problems in schools	1	2	3	4	5	6	7
core	9	LE	Contextual	I will meet informally with other teachers to discuss ways to deal with challenges	1	2	3	4	5	6	7
core	10	LE	Contextual	I know that teachers have to teach in schools that face many, on-going challenges	1	2	3	4	5	6	7
core	11	LE	Contextual	My spirituality/religion helps me to be a teacher	1	2	3	4	5	6	7

Used in FIRE project, UP. Generated from findings in Coetzee, S. (2014). Sustaining teacher career resilience in a resource constrained rural education system: A retrospective study (Doctoral dissertation). Retrieved from https://repository.up.ac.za/handle/2263/40230

7.4 Appendix D: The REPSSI Social Connectedness scale

Appendix D: The REPSSI Social Connectedness scale

Dear Participant,

The questionnaire requires your participation and honest feedback. Due to the nature of the Social Connectedness topic, you will be asked questions about certain issues that may or may not be sensitive. You will be asked questions about yourself, how you feel about certain issues and support or skill required for these. Please know that your answers will be kept PRIVATE and CONFIDENTIAL. Only the evaluation team will be reviewing the completed questionnaires. You are free to not complete this questionnaire or to not respond to any questions you do not feel comfortable responding to.

Thank you for taking the time to complete the questionnaire. Your answers will assist in improving and strengthening Social Connectedness programmes.

GENERAL INFORMATION					
DATE:			**COUNTRY:**		
PROVINCE:			**CITY/TOWN:**		
NAME AND SURNAME:			**CONSENT:**	Yes	No
GENDER:	Female	Male	**AGE:**		

6. Using the scale below, please tell us how skilled (capable) you feel about building relationships:					
SCALE for Q6:	**1 = Not at all skilled**	**2 = Not very skilled**	**3 = Fairly skilled**	**4 = Very skilled**	**0 = Don't Know/ No Answer**
6.1) For yourself.	1	2	3	4	0
6.2) For the primary care givers with whom you work.	1	2	3	4	0
6.3) For the children with which you work.	1	2	3	4	0
6.4) For the community in which you work.	1	2	3	4	0

7. Next to each item below note how satisfied or unsatisfied you are with					
SCALE for Q7:	**1 = Not at all satisfied**	**2 = Not very satisfied**	**3 = Fairly satisfied**	**4 = Very satisfied**	**0 = Don't Know/ No Answer**
7.1) Life overall	1	2	3	4	0
7.2) Food	1	2	3	4	0
7.3) Housing	1	2	3	4	0
7.4) Income	1	2	3	4	0
7.5) Health	1	2	3	4	0
7.6) Work	1	2	3	4	0
7.7) Local security level	1	2	3	4	0
7.8) Friends	1	2	3	4	0
7.9) Family	1	2	3	4	0
7.10) Education	1	2	3	4	0
7.11) Dignity	1	2	3	4	0
7.12) Neighbourhood/ town/community	1	2	3	4	0
7.13) Ability to help others	1	2	3	4	0
7.14) Spiritual, religious or philosophical beliefs	1	2	3	4	0
7.15) Personal relationships	1	2	3	4	0
7.16) Spouse or partner	1	2	3	4	0
7.17) People you work with	1	2	3	4	0

8. How true are the following statements for you and for your life?					
SCALE for Q8:	**1 = Not at all true**	**2 = Not very true**	**3 = Fairly true**	**4 = Very true**	**0 = Don't Know/ No Answer**
8.1) I get along well with people I come into contact with.	1	2	3	4	0
8.2) I can deal with life's challenges.	1	2	3	4	0
8.3) I am close to the people I regularly interact with.	1	2	3	4	0
8.4) I have people in my life that care about me.	1	2	3	4	0
8.5) The members of my family have respect and trust for one another.	1	2	3	4	0
8.6) I believe I can do whatever I decide to do	1	2	3	4	0
8.7) I am able to build relationships.	1	2	3	4	0
8.8) The community I live in has a strong sense of social connections.	1	2	3	4	0
8.9) The community I live in has safe spaces for children to learn.	1	2	3	4	0
8.10) My connections (networks) help me to access resources that support my goals.	1	2	3	4	0
8.11) My connections (networks) help me to access resources for the children I work with.	1	2	3	4	0

9. Please indicate for each of the statements, the extent to which they apply to your situation, the way you feel now.			
SCALE for Q9:	**1 = yes**	**2 = more or less**	**3 = no**
9.1) I feel that no one really knows me			
9.2) I can find company when I need it	1	2	3
9.3) There are plenty of people I can rely on when I have problems	1	2	3
9.4) There are many people I can trust completely	1	2	3
9.5) There are enough people I feel close to	1	2	3
9.6) I miss having people around	1	2	3
9.7) I often feel rejected	1	2	3

10. Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people? Circle one:	People can be trusted	You can't be too careful
11. Are there people in your family that you trust?	Yes	No
12. If yes, how many family members:		
13. Are there people in your family that you can call on for help?	Yes	No
14. If yes, how many family members:		
15. Are there people in your workplace (where you work or volunteer) that you trust?	Yes	No
16. If yes, how many colleagues:		
17. Are there people in your workplace (where you work or volunteer) that you can call on for help?	Yes	No
18. If yes, how many colleagues:		
19. Do you have friends that you trust?	Yes	No
20. If yes, how many friends:		
21. Do you have friends that you can call on for help?	Yes	No
22. If yes, how many friends:		
23. Are there people in your community (maybe a social worker, a volunteer, a religious leader, etc.) that you trust?	Yes	No
24. If yes, how many community members:		

25. Do you feel that people in the communities you work in have people that they trust? Please circle the answer that applies (is most true)	1 = yes	2 = more or less	3 = no
26. Do you feel that people in the communities you work in have people that they can ask for help from? Please circle the answer that applies (is most true)	1 = yes	2 = more or less	3 = no

27. Finally, how important do you think it is that people are socially connected? Please circle the one answer that applies:			
1 = Not very important	2 = quite important	3 = very important	0 = Don't Know/ No Answer

Thank you for taking the time to complete this questionnaire! Your answers will assist in improving and strengthening Social Connectedness programmes.

7.5 Appendix E: Demographic Questionnaire– Social connectedness as pathway to teacher resilience

Social connectedness as pathway to teacher resilience

Dear Participant

The information you provide by completing this page will help me understand who you are and where you come from. It will also help me to structure the research process in such a way that it suits your preferences. The information will never be known to belong to you specifically because when I write the findings of the research I will not use your name.

Please complete the following:

Name and Surname			
Gender			
Age		Nationality	
Your contact number:			
Teacher Qualifications	Name of qualification:	Training Institution:	Year completed:
Are you currently studying? If “yes” please provide details to the left	Current programme:	Institution where enrolled:	Year in which study commenced:
How far away do you live from the school where you teach			
What is your home language			
In which language(-s) do you teach			
Which other languages do you use at school			

Which grades are you teaching at the moment			
Which subjects are you teaching			
Which grades have you taught in the past			
Which subjects have you taught in the past			
How long have you been teaching?	Less than 15 years	Between 15 to 24 years	More than 24 years
How long have you been teaching at this school			
What do you enjoy about being a teacher?			
What do you dislike about being a teacher?			
Why do you teach?			

7.6 Appendix F: Research Visit Schedule

Dates of Visit	Purpose of Visit	Participants	Time in Field	Data Collection
Pre-Intervention Session: 21 September 2018	Invite teachers to participate in the intervention. Explain consent form (see Appendix X). Collect quantitative and qualitative pre-intervention data and demographic questionnaires (see Appendix X).	36	5 hours	Self-administered individual teacher-completed questionnaires including ENTRÉE scale (see Appendix X). and the social connectedness REPSSI scale (see Appendix xx). Qualitative Participatory and Reflection (PRA) data with teachers (see Appendix xx).
Intervention Training: 15 March 2019	The training objectives included: (i) an orientation to the Isithebe Kit, (ii) modelling an Isithebe gathering, (iii) consultation and consensus on meeting dates, and (iv) schools tasking individual teachers with Isithebe roles and tasks.	30	5 hours	Qualitative Participatory and Reflection (PRA) data with teachers. Visual data: photographs of PRA posters (see Appendix X). Observation data: field notes and researcher journal on PRA-process (see Appendix X).
First Teacher Isithebe Gathering: 15 April 2019	Teachers used Isithebe Kit craft materials and glue from the designated activity package to decorate boxes. Teachers then chose relationship vouchers to place inside their individual boxes.	27	2 hours	WhatsApp images teachers shared of this session (photograph 30-37). WhatsApp (see Appendix X).
First Joint Teacher-Researcher Isithebe Gathering: 27 May 2019	The meeting was divided into two parts: an ice-breaker activity followed by generating process PRA data per school.	21	3 hours	Teachers groups to present PRA posters (see Appendix X). Textual data: verbatim transcriptions of audio-recorded school-group presentations on PRA prompts (see Appendix X).
Second Teacher Isithebe Gathering: 10 June 2019	Teachers used Isithebe Kit craft materials and glue to decorate the outside of blank exercise books and then wrote down favourite recipes in each other's decorated recipe books.	24	2 hours	WhatsApp images teachers shared of this session (photograph 42-47). WhatsApp (see Appendix X).
Second Joint Teacher-Researcher Isithebe	The ice-breaker artactivity involved teachers making either bracelets or other items of jewellery of their choice to represent their journey as a	30	3 hours	Teachers groups to present PRA posters (see Appendix X). Textual data: verbatim transcriptions of audio-

gathering: 29 July 2019	teacher, followed by generating process PRA data per school.			recorded school-group presentations on PRA prompts (see Appendix X).
Third Teacher Isithebe gathering: 18 August 2019	Teachers used a specific art-activity package in the Isithebe Kit. Each teacher received a blank photo frame and craft materials with instructions to decorate the frame.	25	2 hours	WhatsApp images teachers shared of this session (photograph 48-51). WhatsApp (see Appendix X).
Post-Intervention Data Collection: 21 September 2019	Collect quantitative and qualitative pre-intervention data and demographic questionnaires (see Appendix X). Closing off and reflection.	15	5 hours	Self-administered individual teacher-completed questionnaires including ENTRÉE scale (see Appendix X). and the social connectedness REPSSI scale (see Appendix xx). Qualitative Participatory and Reflection (PRA) data with teachers (see Appendix xx).

7.7 Appendix G: Extract of Researcher Journal

Research field journal

21 SEP 2018 Preintervention session.

36 teachers arrive.
Teachers arrive in school groups – they keep to their groups & don't really interact with one another.

As teachers arrive, Prof Ebersohn welcomes all & introduces proceedings.

Consent forms + demographics questionnaires + ENTRICE + RESILI ques are handed out to all teachers. Researchers walk around the venue to distribute pens & ~~ask~~ are available to answer any questions. Teachers seem comfortable answering the questionnaire, with a few teachers asking for clarity every now & then

After teachers completed the questionnaire, the researchers explain to them the PRA posters.

Researchers walk around and distribute blank pieces of paper & pens. Teachers are asked to work in teacher groups to answer questions.

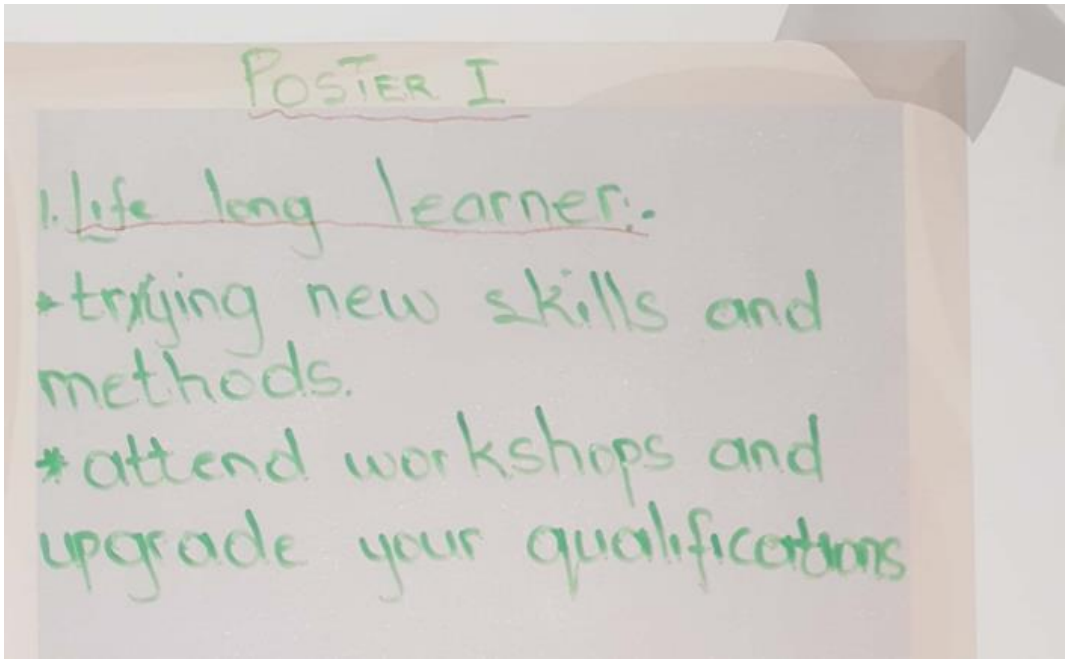
Teachers seem to be engaged & enjoy the posters.

~~From~~ when teachers presented the posters on what it means to be a good teacher, I could see that many of them felt passionate about their work & were proud to be teachers.

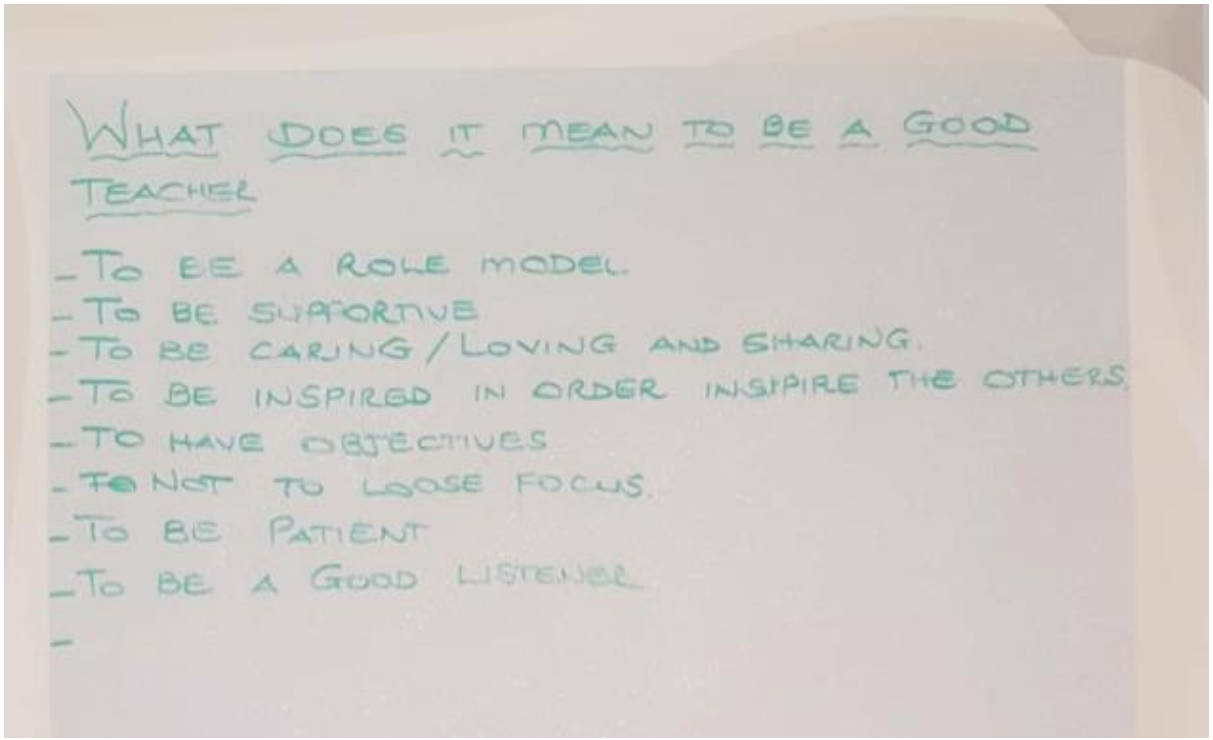
7.8 Appendix H: PRA Posters

Pre-intervention: What does it mean to be a good teacher?

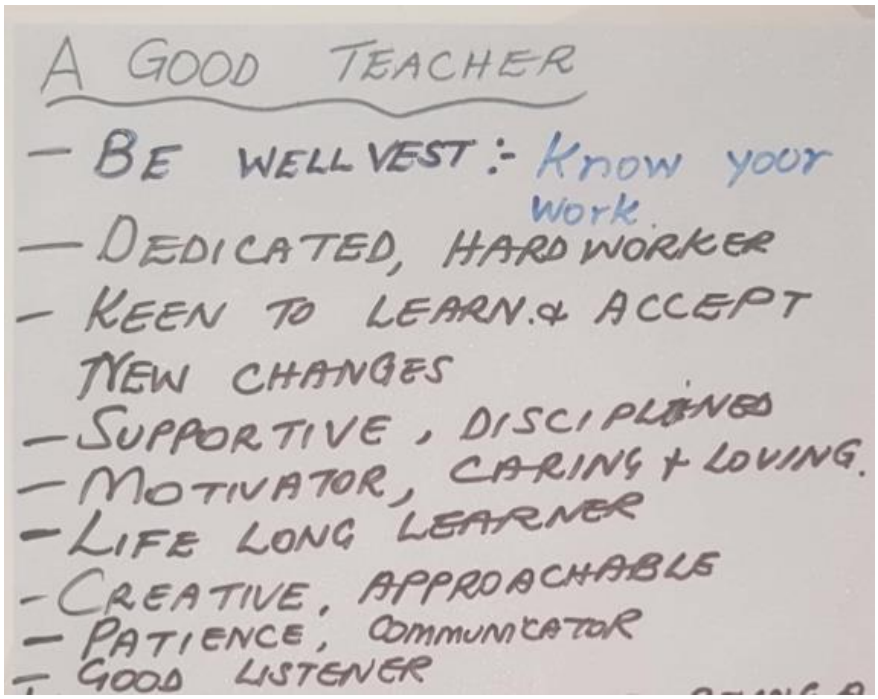
School A



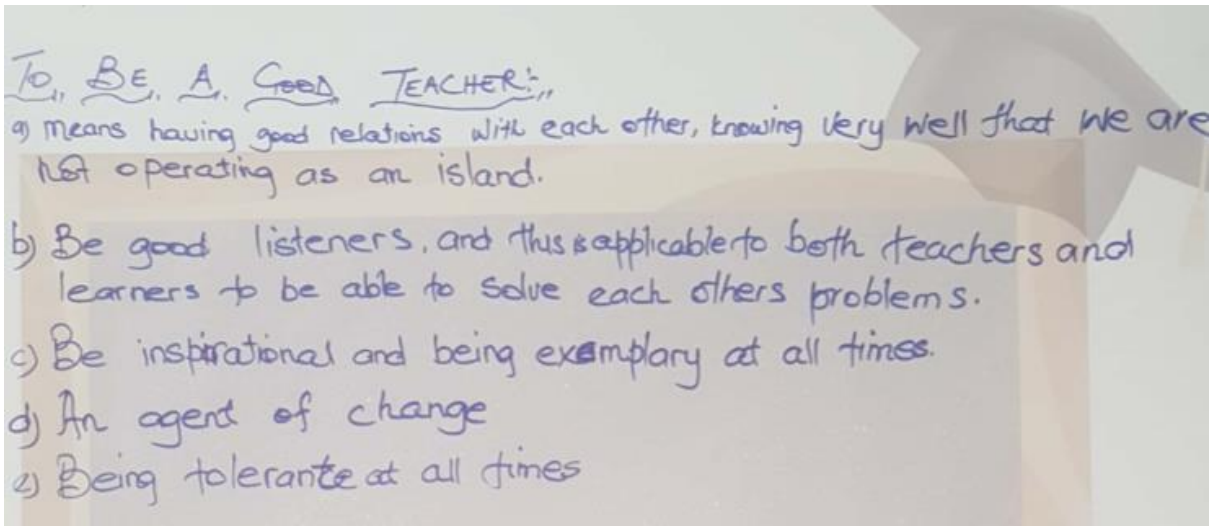
School B



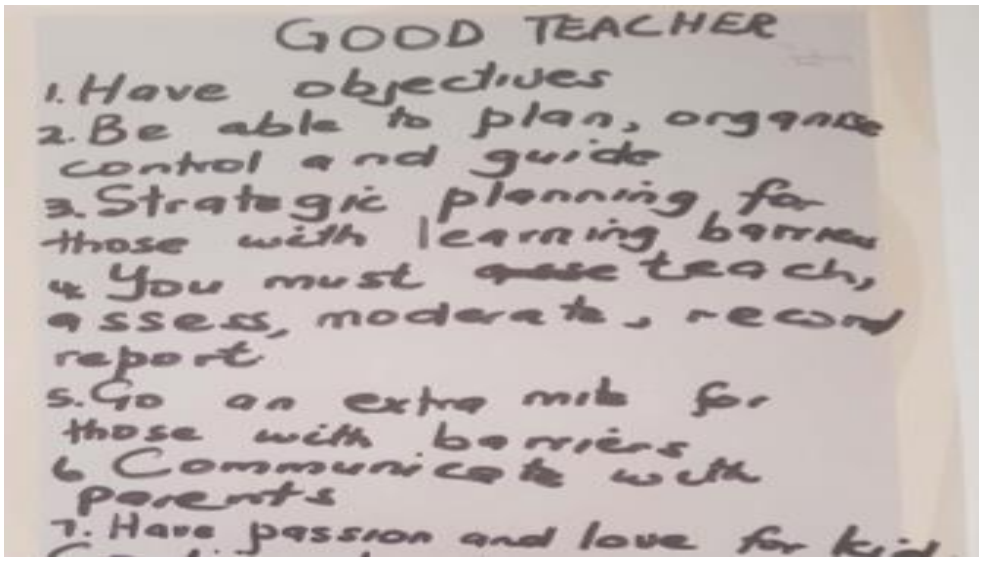
School C



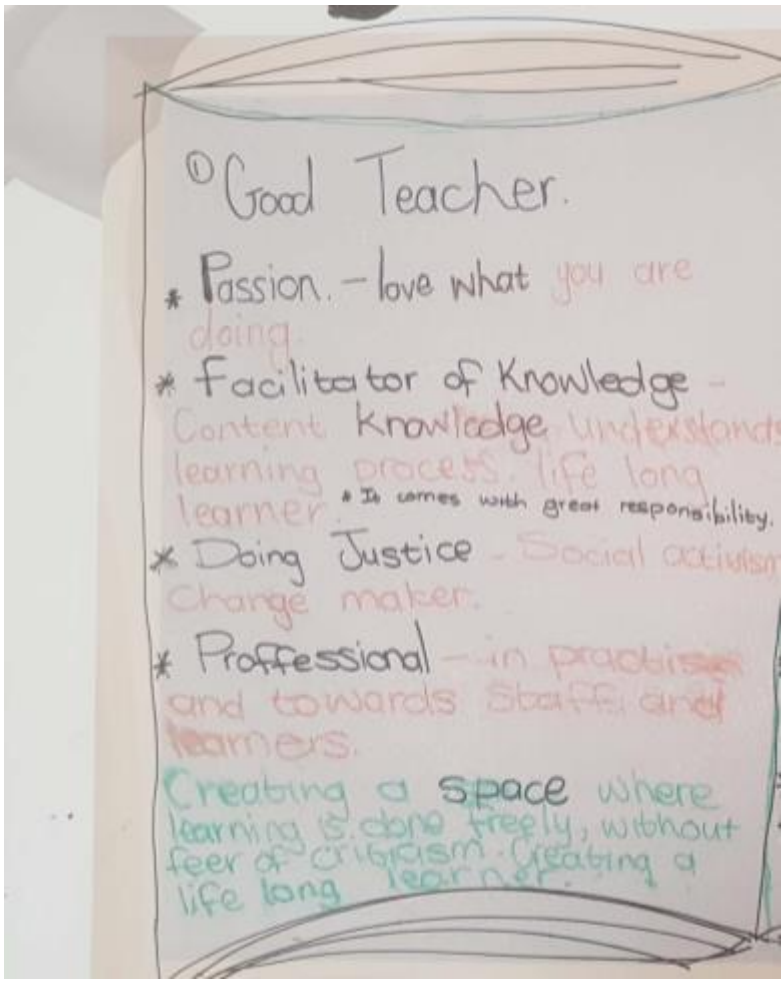
School D



School E

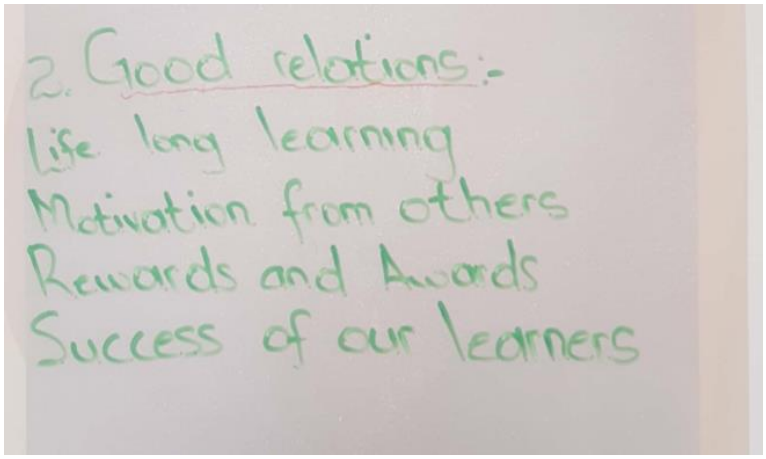


School F

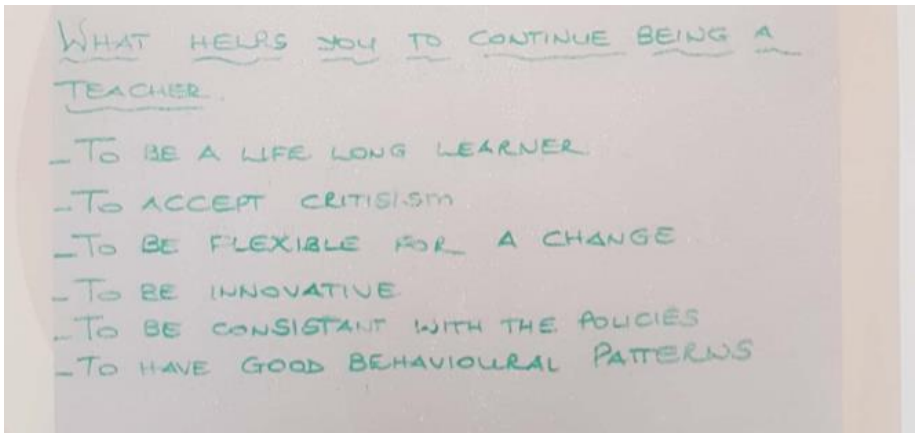


Pre-intervention: What helps you continue being a good teacher?

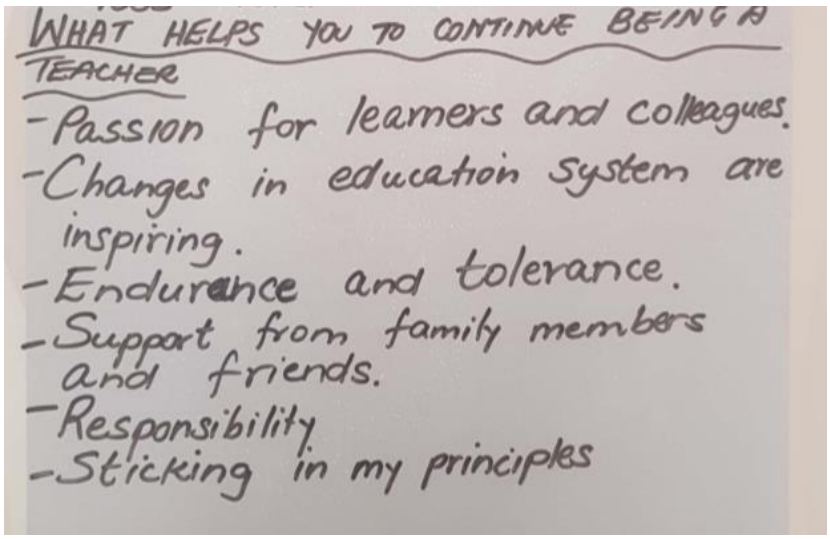
School A



School B



School C



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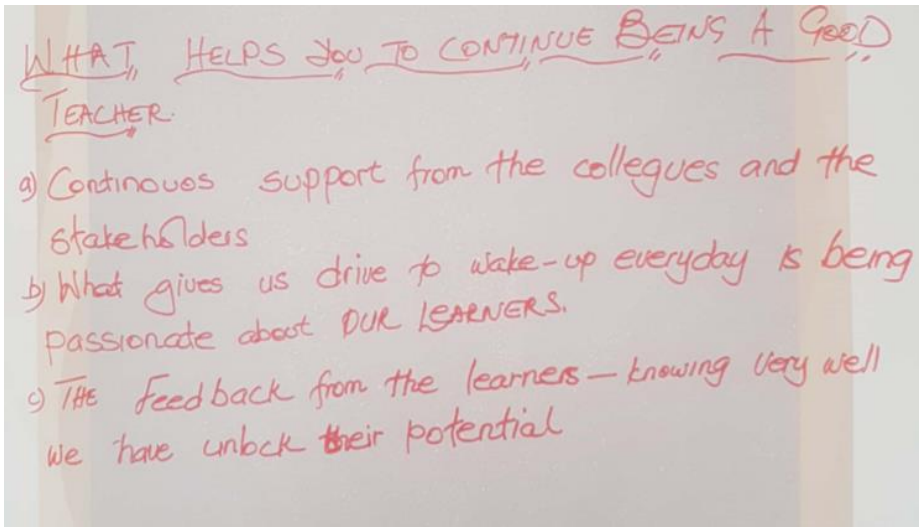
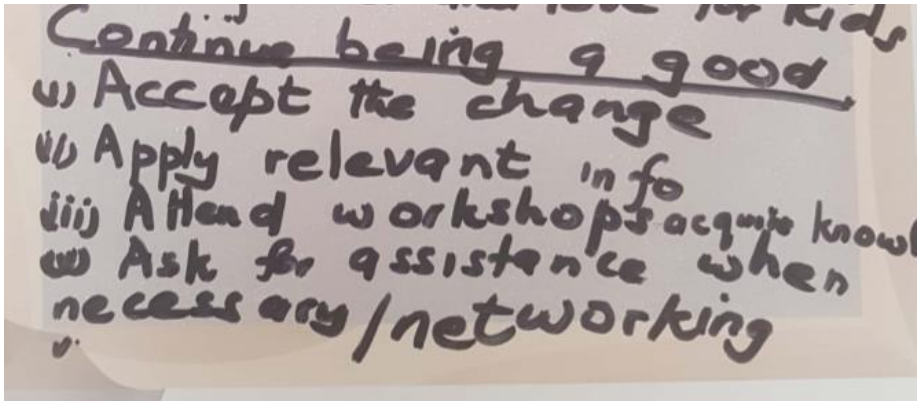
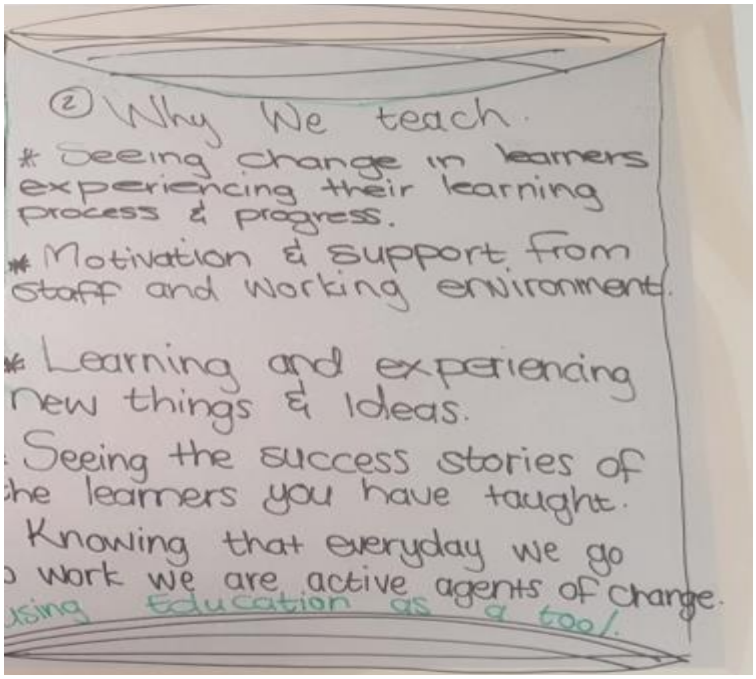


School E

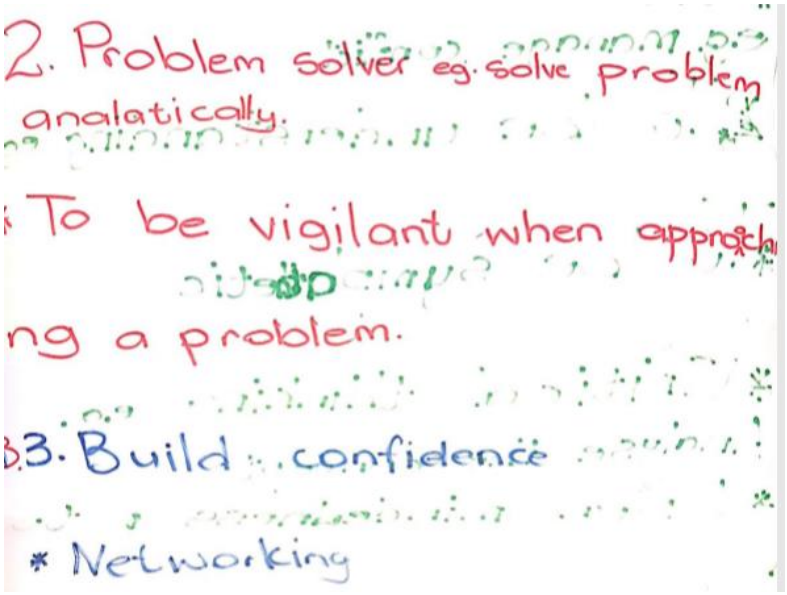


School F

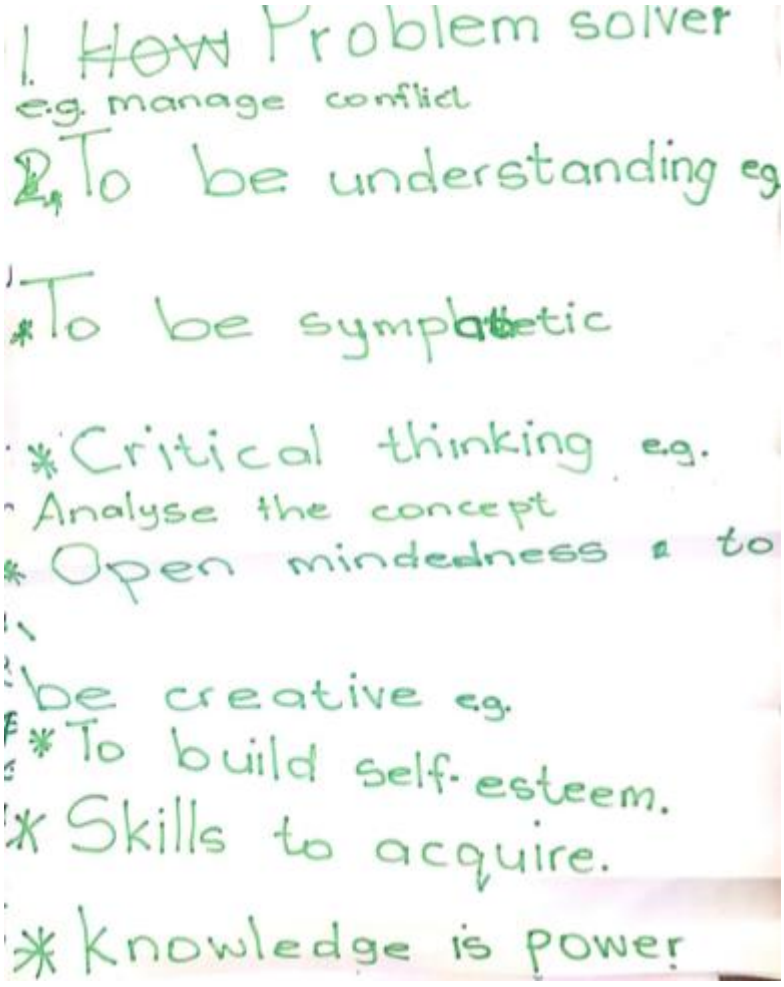


Process data: How do these gatherings help you to be a good teacher?

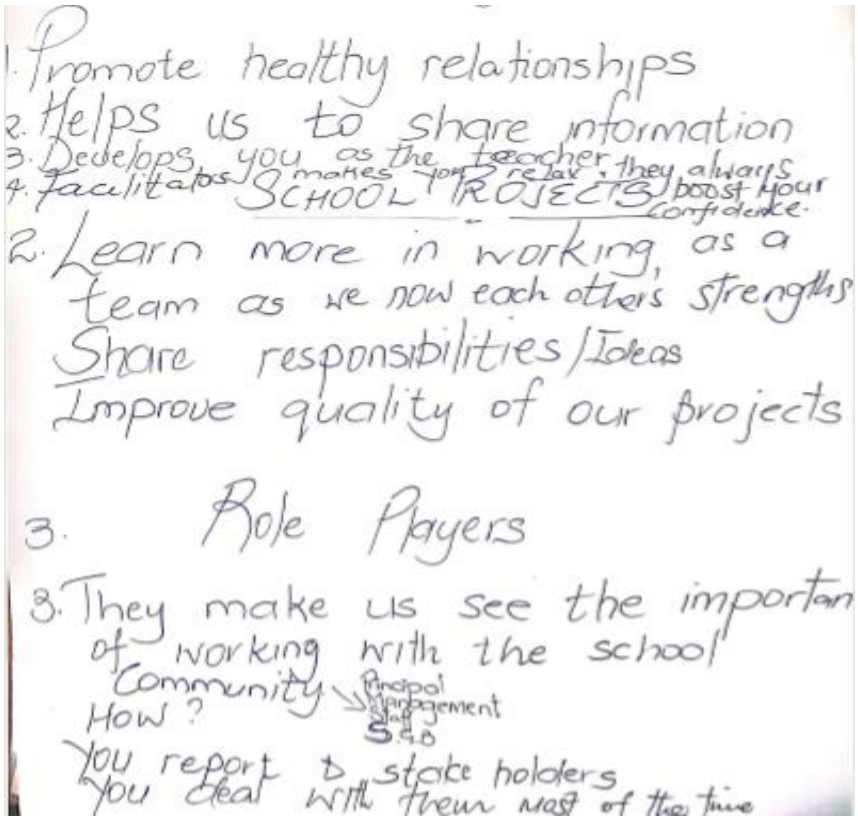
School A



School B



School C

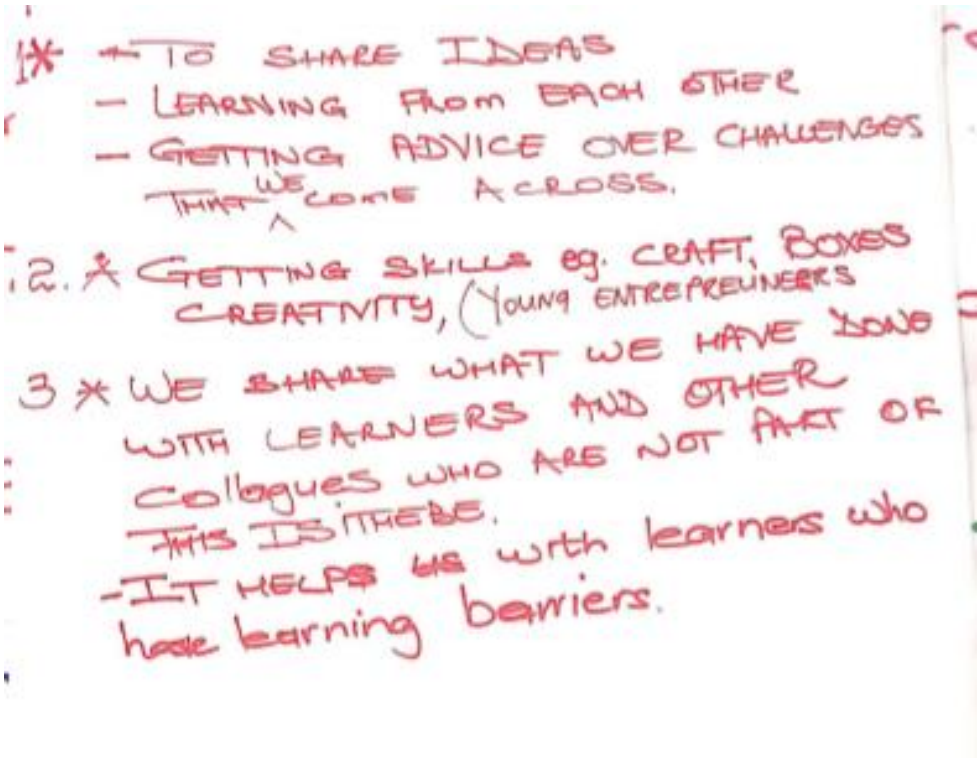

1. Promote healthy relationships
2. Helps us to share information
3. Develops you as the teacher, they always
4. Facilitates you makes you relax SCHOOL PROJECTS boost your confidence.

2. Learn more in working as a team as we now each others strengths
Share responsibilities/Ideas
Improve quality of our projects

3. Role Players

3. They make us see the importan of working with the school community
Principal
Management
Staff
SGB
How?
You report to stake holders
You deal with them most of the time

School E

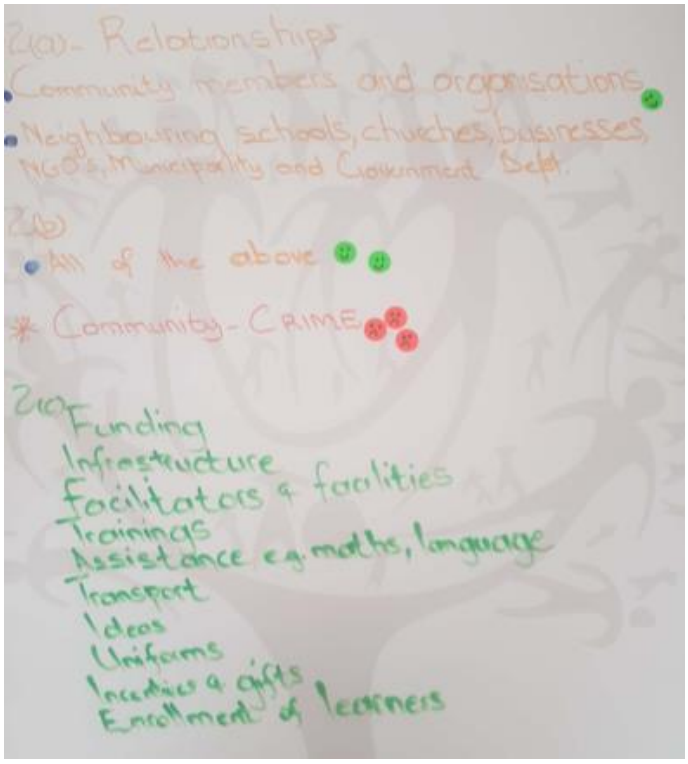

1* → TO SHARE IDEAS
– LEARNING FROM EACH OTHER
– GETTING ADVICE OVER CHALLENGES THAT WE COME ACROSS.

2. * GETTING SKILLS eg. CRAFT, BOXES CREATIVITY, (YOUNG ENTREPRENEERS

3 * WE SHARE WHAT WE HAVE DONE WITH LEARNERS AND OTHER Collogues WHO ARE NOT PART OF THIS ISITHEBE.
-IT HELPS US with learners who have learning barriers.

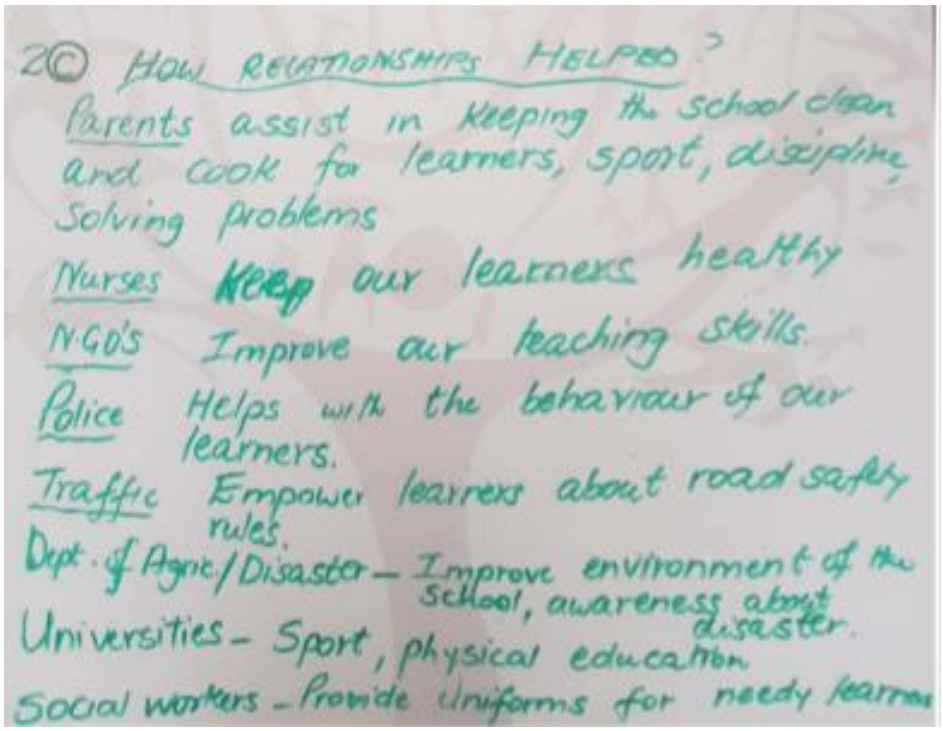
Post-intervention: How do relationships help you to be a good teacher?

School A

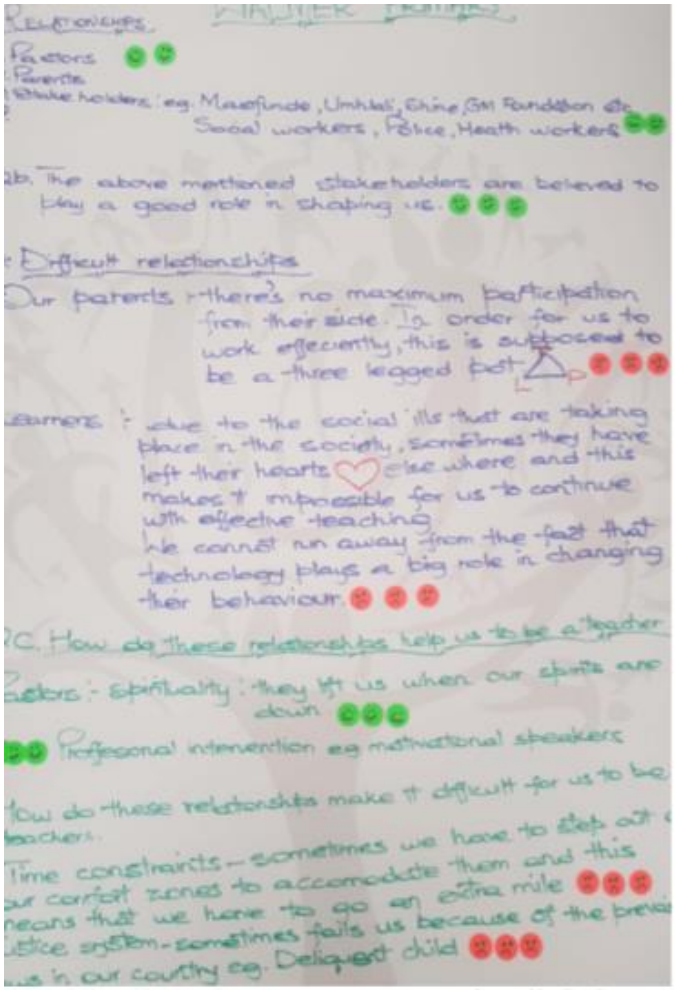


School B

School C



School D



School F